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Editor's Note

This is the first issue of the Journal of College of Management Sciences at Bells University of Technology in Ota, Ogun State. The objective of this Journal is to serve as a medium of contribution for researchers in the fields of Economics, Accounting, Banking and Finance, Management, Human Resource Management, Project Management, and Transport Management to contribute to the body of knowledge in their respective fields.

All the studies in this Journal are peer-reviewed and has undergone plagiarism check. Peer review is pivotal to the efficacy of the scholarly publication process in the field of research. It is highly consequential to the careers of the authors and their morals too. It also shows the quality and innovation of the work that Journals publish and to the intellectual base of a discipline.

The topics covered are timely and will be of interest to the readers of the Journal. The manuscripts are very well written and the ideas flow logically. The research studies are thorough and adequately written so that readers are given adequate background about the topics. The Journal also offers new information and a new slant on the topics. The authors followed the methodological principles used in the analysis of data. They have selected the right statistical tools to analyse the data. Therefore, the conclusions that the authors made are expressed in simple, straightforward language to make for easy comprehension for all stakeholders.

We believe that findings and recommendations in the studies herein will be useful by policy makers in the field of Economics, Accounting, Finance and Banking, Management, Human Resource Management, Project Management, and Transport Management, both within and outside Nigeria.

We want to let you know that submission is an ongoing exercise. Therefore, interested researchers are expected to adhere to the guidelines of the Journals before submitting the article.

Thank you.

Dr (Mrs) Njogo O. Bibiana
Editor-in-Chief Bells
Bells University of Technology Journal of Management Sciences (BUTJMS),
College of Management Sciences, Bells University of Technology Ota, Ogun State
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Managing Editors' Note

First and foremost, I'd like to welcome everyone to the maiden edition of the Bells University of Technology Journal of Management Sciences (BUTJMS). This new publication symbolises a new chapter in Bells University of Technology College of Management Sciences' leadership. The Dean's and College Board's visionary effort has resulted in the publication of the Journal. As the Managing Editor, it is a great honour to publish this maiden edition.

The BUTJMS is an open-access peer-reviewed bi-annual scholarly journal dedicated to publishing high-quality research studies in all sub-fields of Economics, Accounting, Financial Management, Human Resource Management, Project Management, Transportation Management, Marketing, Business Administration, and Entrepreneurship Management.

As a high-quality publication with a broad readership potential, the natural audience is envisaged to include academics, researchers, policymakers, regulators, and practitioners. As a result, the journal accepts articles in management sciences that are theoretical, practical, empirical, case-based, or policy-oriented. There is no clear-cut boundary, and topics are not restricted in any way, allowing for research freedom.

This Journal is dedicated to upholding the highest standards of publication ethics and has taken every precaution against any publication malpractices.

The editorial team is pleased to publish a first issue that is thought-provoking, captivating, and provides an intriguing insight into the high level of Academic Research in Social and Management Sciences.

We are grateful for the reviewers' time and effort. Their remarkable due diligence and meticulous examination of submitted research articles assisted the editorial team in avoiding several issues we could have encountered.

We must also thank everyone who submitted to the journal, especially those whose work was eventually accepted - after an arduous revision/review process that resulted in high-quality research work.

We aim to be able to maintain the best possible level for the Journal in the future while encouraging outstanding academic research initiatives.

Thank you all.

Dr Bashiru A. Bello
Managing Editor
Bells University of Technology Journal of Management Sciences (BUTJMS),
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THE EFFECT OF INVESTMENT DECISIONS ON FIRM PERFORMANCE OF SELECTED FIRMS LISTED ON THE NIGERIA STOCK EXCHANGE

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ABSTRACT

Due to the crucial roles that firms play in the socio-economic life of the country, various scholars have attempted to identify why the country continues to face the underperformance of many corporations despite the availability of knowledge and funds. The purpose of this study was to analyse the impact of investment decisions on the performance of 20 selected firms listed on the Nigerian Stock Exchange using the Pooled-Ordinary Least Square Method on secondary data - leverage, liquidity, and investing skills - from 2014 to 2019. The independent variables—Leverage, Liquidity, and Investment Decision—theoretically indicate predictors of investment decisions, whereas the dependent variable—Firm Performance—is represented by Return on Asset, which is a powerful indication of a firm's worth. The findings indicate that financial leverage has a positive influence on Return on Asset while there is a negative relationship between Return on Asset and investment decision and liquidity. There is also a strong and positive correlation between liquidity and investment decision (R =.096), as well as a positive correlation between financial leverage and liquidity (R =.144) but a negative correlation between leverage and investment (R =-.012). As a result, the study suggests that investment decisions be timely, relevant, and dynamic and that they generate economic activities that last a long period.

Keywords: Investment Decision, Firm Performance, Leverage, Liquidity and Nigerian Stock Exchange (NSE)

1. INTRODUCTION

The optimization of firm value is critical for both firm management and investors. Firms make decisions based on the projected rates of profit and their risk, on the one hand, and the value created from funds available for usage, on the other. If the profit ratio surpasses the cost of available funds, the firm will proceed with the investment. The allocation of monies committed by an organisation into assets with the goal of future return is known as investment. In other words, investment decisions are made by investors or top management on the quantity or value of cash to be committed in an investment opportunity. Investment decisions are so critical since they relate to profitability, which is the fundamental basis of starting a business (Harjito & Martono 2013).

Harjito & Martono (2013) opined that a company's investment decisions are reflected within the characteristics of assets it invests in. Crucial investment decision arises as a result of the separation of users of fund and providers of funds. Providers of funds usually entrust within the care of users of funds the autonomy to utilize or convert such funds into gains/profit which is referred to in Finance as Agency Theory. Studies on investment decisions have shown that due to the issue of knowledge or information asymmetry between managers and providers of funds, investment decisions may significantly affect the success or failure of any company. Emphatically, investment decision attempts to balance all parties' interests by subduing significantly Agency problems.

The concept of Firm value maximization created by efficient investment decision was agreed upon by Karuna (2006); Laksmana and Yang (2015) and; Akdogu and MacKay (2012). The performance of an organization is often considered the foremost important yardstick to detect any anomaly or effect of information asymmetry as it's important at determining its sustainability and growth. Harjito & Martono (2013) opines that performance measurement through various tools was instituted to evaluate the effectiveness and efficiency of company management in managing investment, and utilising funds of the corporate. They also exposed the great importance of financial statements submitted by Companies which highlights the company's ability to manage short-term and long-term funds, the flexibility of companies to utilize their assets effectively and the company's ability to create value. Similarly, in an emerging economy like Nigeria, firms listed on the Nigeria Stock Exchange play a major role in re-engineering the socio-economic landscape of the country. National Bureau of Statistics (NBS) reports that Nigeria Firms contribute 87.9 percent of the workforce and consist 48 percent of commercial output in terms of economic value (Somoye 2013). Besides, Nigeria is seen as a regional powerhouse in Africa and is the 20th largest economy within the world, worth over $500 billion in GDP (Anyanwu & Yameogo 2015). Importantly, Firms in Nigeria has over the years have transformed into much dependable institution as a result of size, market structure and quality of products which have ultimately dictated the failure and success of many. The competitive nature of the operating environment has also over the years given rise to diligent and efficient use of scarce resources. Arguably, the management decision of where and what to invest in have caused some companies to succeed and many to be forgotten in history.

Due to important roles that firms perform in the Nation's socio-economic life, several researchers have sort to determine why the country still experience death and underperformance of many companies despite the availability of information and fund. Though many have unearthed causes ranging from inflation to fund availability, research, staff quality, and other factors unique to the firm's size, age, and corporate governance, few studies have examined the impact of management investment decisions on information asymmetry and agency problems, as well as their contribution to performance. A particular area of interest is determining which specific factors under-investment decisions determine a firm's success or failure. The consequences of not knowing these factors will cause many firms to struggle to expand further, and new start-ups will struggle to obtain bank loans due to failed projects, employees will lose their jobs, and the government will face income generation shortages as a result of reduced corporate and personal taxes. As a result, tracking the causes of a company's potential business failure continuously would be a significant contribution to the corporate sector and the economy.

The objective of this research is to look into the impact of investment decisions on the performance of 20 companies listed on the Nigerian Stock Exchange. This research is organised into five sections. Aside from the introduction, section two is a review of the literature. Section three is concerned with the study's methodology, while Section four is concerned with the results and discussion. Section five brings the study to a close.

2. LITERATURE REVIEW

Theoretical Literature

In the past, discussions about the importance of leverage, liquidity, and investment decisions were based on many propositions made by various experts. Major theories such as the Capital Structure Irrelevance Theorem, Trade-off Theory, Pecking Order Theory, and Market Timing Theory all contributed to literature and concepts connected to the descriptive variable that this study will briefly investigate.

Firm Performance and Leverage

Firm Performance reflects how effectively the firm has been managed and resources utilized. It can be measured in terms of profitability. Measurement of Firms Performance through financial analysis had been a credible tool for investors, decision-makers, creditors, and other stakeholders. The effect of Leverage is a major discussion and exploration of theories such as the Capital Structure Irrelevance theory of Modigliani and Miller (1958); Modigliani and Miller (1963); and Jensen and Meckling's Agency Theory (1979). Modigliani and Miller (1958) opined that the lower cost of tax enjoyed by levered firms is not only a good motivation for debt but also the risk-free characteristics of debts as a result of it being an arbitraged channel that makes it an attractive model for firms in taking advantage of tax protection. In other words, Shareholders will decline any proposition to make more investment which could result in underinvestment. This expectation explains the issue that a more leveraged firm tends to expose the direct owners or shareholders to greater risk and as such justifies higher returns for the owners.

To optimize firm performance, some researchers, such as Modigliani and Miller, proposed a consistent consideration of the firm's total cost of financing debts (which includes debt-issuing costs, bankruptcy costs, and agency costs) in relation to the firm's leverage, so that the total derivable benefits (such as interest tax shields and lower agency cost of equity) are always highly aesthetic. It is worth noting here that, according to traditional capital structure theory, there is a correlation between leverage and company value, which is depicted as a concave shape with an optimal capital structure at the point where the gradient of the function is zero. Other scholars proposed using an equi-marginal principle with this structure, which investigates the potential that business value continues to rise as long as marginal profits from leverage exceed marginal projected loss from default costs. At the same time, a decline in the marginal indicates a decrease in the firm's value, and hence its performance. In essence, several criteria have been identified as important drivers of firm performance, including the firm's size, number of years in operation, and level of profitability. Firm performance has been found to be significantly influenced by the tax regime, economy, and level of information symmetry in the capital market.

According to the Pecking Order Theory, firms prefer internal financing if it is sufficient for company operations but will seek external financing if the internal source of funds is insufficient. Long-term borrowing, short-term borrowing, and equity as a last resort are the preferred external sources in order of preference based on cost. However, for developing countries, the Pecking order theory (Reverse Pecking Order) is characterised by a revision of financing preferences, which include retained earnings, equity, long-term debt, and, finally, short-term borrowing. Trade-off theory, on the other hand, holds that organisations decide their optimal financial structure by striking a balance between the costs of incurring new debt and the advantages derived (tax-deductibility of interest).

Firm Performance and Liquidity

Decisions about the use of the firm's assets should be consistent with the basic goal of the firm, which is to maximise the wealth of the shareholders. The determination of an ideal level of liquidity is a substantial focus on the efficient utilisation of assets. The capacity of a corporation to satisfy its short-term obligations, known as liquidity, has a significant impact on the firm's profitability. As a result, the correlation between liquidity and profitability is significant to both owners and potential investors. In theory, the goals of liquidity and profitability are seen to be mutually exclusive. The purpose of efficient liquidity utilisation is to aid a corporation in maximising earnings while fulfilling both short-term debt and anticipated operating needs, i.e. to conserve liquidity (Panigrahi, 2014). To do this, enterprises, on the one hand, eliminate the

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danger of being unable to satisfy their obligations, while, on the other hand, avoiding excessive investments in current assets (Eljelly 2004). Fundamentally, when there is an excess of liquidity, managers are more likely to make investments to maximise their self-interest, which may be detrimental to profitability (Adams & Bukler, 2003). When this occurs, managers run the danger of investing in initiatives with negative net present values (Adams & Buckle 2003). As a result, the relationship between liquidity and profitability has become an important topic of research in corporate finance.

Empirical Literature Review

There have been numerous empirical studies on the relationship between leverage, liquidity, and profitability-firm performance in terms of investment decisions. The conclusions of these investigations, however, are equivocal. Some research showed positive correlations between leverage and profitability, while others found negative correlations. Others, though, did not see any connection between the two. According to Robb and Robinson (2010) and Ruland and Zhou (2005), there is a positive association between leverage and company performance. Robb and Robinson (2010) discovered that leverage profits are fairly considered and that the usage of debt increases firm value. According to Abor (2005), there is a positive relationship between total debt and total assets in terms of profitability when assessed as return on equity. Furthermore, he believes that a company's debt level and value are positively associated when shareholders have complete control over the company's operations and adversely related when debt holders can influence the company's operations.

Fundamentally, the influence of debt on business value is determined by the firm's power balance. As a result, when loan holders have more power, negative leverage exists. In the opposite circumstance, shareholders have more authority. When significant levels of debt are used in the capital structure, the return on shareholders' capital (return on owner's equity) decreases or increases. Various research, however, have identified negative connections between leverage and profitability (Negash, 2002); Phillips & Sipahioglu, 2004). Negash (2002) discovered that debt has a negative impact on the profitability of enterprises listed on the Johannesburg Stock Exchange. They all contended that the gains from leverage over time are large and equivalent to what has been documented in studies from industrialised countries in support of the Modigliani and Miller theory.

In Nigeria, Akinlo and Asaolu (2012) explore the profit profile of firms and analyse the influence of leverage on profitability from 1999 to 2007. According to the findings, the aggregate profit level for the enterprises declined by 0.02 percent every year during the study period. According to the findings, business size has a considerable beneficial effect on profitability, whereas leverage has a negative effect. Similarly, Enekwe, Agu, and Eziedo (2014) examined the impact of financial leverage on the performance of three publicly traded Nigerian pharmaceutical companies from 2001 to 2012. In addition, the study discovered an indirect relationship between financial performance and leverage. Furthermore, Edem (2017) examined the impact of liquidity management on the performance (Return on Equity) of twenty-four Nigerian commercial banks from 1986 to 2011. The findings reveal that there is a substantial relationship between liquidity management strategies and return on equity of (DMBs) in Nigeria. Oyedokun, Job-Olatunji, and Sanyaolu (2018) investigated the impact of capital structure on the financial performance of ten Nigerian listed manufacturing businesses between 2007 and 2016. The findings found a statistically negligible link between capital structure and performance.

Eljelly (2004) discovered a significant inverse relationship between a firm's profitability and liquidity level. The hint is that when organisations have a large amount of cash, they may be missing out on potential investment possibilities. It is dangerous to have fewer current assets.

However, it is advantageous in the long run because more cash is retained, profits are reduced as a result of missed profit-generating investment possibilities. Firms that are illiquid are risky but profitable. This is dependent on other factors such as the firm's size and age. An investigation was done by Khidmat & Rehman (2014) on the relationship between liquidity, solvency and performance which plays a vital role in the Return on Assets of the chemical sector in Pakistan. Conclusions drawn were that liquidity ratio affects return on asset positively while it impacts negatively on solvency.

3. METHODOLOGY

Research Design

In carrying out this study, an ex post facto research design was used. This is a research design that is used for investigating possible cause and effect relationships through the observation of existing conditions or events that had already happened. The research design used was justified in the sense that the variables used in the analysis can neither be manipulated nor controlled because the event had already happened.

Sources of Data

The data for the variables- (Academy press plc, Africa Prudential PLC, Afro Media Plc, Berger Paints Plc, Beta Glass Plc, C & I Leasin Outsourcing, Cadbury Plc, Champion Breweries Plc, Conoil Plc, Cutix Plc, Dangote Plc, Fidson Plc, Floormills Plc, Honeywell Plc, Intbrew Plc, Julius Berger Plc, Larfage Plc, Livestock feeds, May & Baker Plc, and Nascom Plc) in the study were extracted from published annual reports and financial statements of the above selected 20 listed companies in the Nigerian Stock Exchange for the period 2014-2019.

Model Specification

The study made use of the Pooled-Ordinary Least Square Method for the analysis and adopted Machuki (2014) model who assessed investment decisions and Firm Performance on Firms in Kenya. The model adoption is specified below and is expressed econometrically as:

$$Y = \alpha + \beta 1X1 + \beta 2X2 + \beta\ 3X3 + E \qquad (1)$$

Where: Y = Financial Performance as measured by Return on Assets of the company; X1 = Investment Decision as measured by the amount of new investment; X2 = Financial Leverage of the company as measured by the Debt to Equity ratio; X3= Liquidity as measured by current assets to current liabilities ratio of the company; The Intercept or constant β 1…. B3; α= the regression coefficients of the independent variables and; E= Error term.

The study used a random effect model to analyse the result. The rationale behind the random-effects model is that, unlike the fixed effects model, the variation across entities is assumed to be random and uncorrelated with the predictor or independent variables included in the model i.e. to eliminate the effect of heteroscedasticity.

4. RESULTS AND DISCUSSIONS

Descriptive Statistics

The variables for this study mean, standard deviation, minimum and maximum values were determined and are shown in Table 1.

Most firms had less than 5 new investments over the last 5 years on average, as evidenced by a mean value of 0.49 and a standard deviation of 0.50, meaning a variance of each of the companies. The Financial Leverage, as measured by the Debt to Equity ratio, averaged 8.5, with a low of 0 and a maximum of 68.4 and a standard deviation of 15. This suggests that, on

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average, the companies studied are highly geared, with a sizable amount of their funding coming from investor financing (shareholders).

Table 1: Descriptive Statistics

	ROA	LEV	INV	LIQ
Mean	0.647655	8.558980	0.491667	2.214958
Median	0.311145	1.552763	0.000000	1.114496
Maximum	10.25680	68.41185	1.000000	130.7022
Minimum	-0.385991	0.000000	0.000000	0.033871
Std. Dev.	1.286988	15.38621	0.502027	11.84841
Skewness	4.727825	2.276400	0.033338	10.76013
Kurtosis	30.17669	7.344023	1.001111	117.1895
Jarque-Bera	4139.908	197.9926	20.00001	67511.86
Probability	0.000000	0.000000	0.000045	0.000000
Sum	77.71859	1027.078	59.00000	265.7950
Sum Sq. Dev.	197.1041	28171.52	29.99167	16705.78
Observations	120	120	120	120

Source: Authors Computation (2020)

Liquidity, as measured by the listed company's current assets to current liabilities ratio, had a mean value of 2.21, a minimum of 0.03 and a maximum of 130.7022, with a standard deviation of 130.70. Most firms have a substantial margin of safety since their ratios are quite high.

Regression Analysis

Panel data regression analysis was utilised in the study to evaluate the relationship between Investment decisions and the financial performance of 20 selected Nigerian firms listed on the Nigeria Stock Exchange. In this case, a simple definitional model was utilised, as illustrated below:

$$ROA = \alpha + \beta 1(\text{Investment Decision}) + \beta 2(\text{Financial Leverage}) + \beta 3(\text{Liquidity}) + \varepsilon \qquad (2)$$

The result is presented in Table 2 below:

Weighted Statistics				
R-squared	0.810005	Mean dependent var		1.867199
Adjusted R-squared	0.766913	S.D. dependent var		1.686327
S.E. of regression	0.676407	Akaike info criterion		-0.437200
Sum squared resid	44.38007	Schwarz criterion		0.097069
Log-likelihood	49.23203	Hannan-Quinn criter.		-0.220231
F-statistic	18.79721	Durbin-Watson stat		1.957574
Prob(F-statistic)	0.000000			

Source: Author's Computation (2020)

The study employed regression analysis to determine the relationship between ROA and relevant investment choice criteria such as Investment Decision, Financial Leverage, and Liquidity. A correlation value (R) of 0.81 was calculated, indicating that ROA is significantly dependent on investment choice characteristics such as Investment Decision, Financial Leverage, and Liquidity.

The corrected R-squared of 0.76 demonstrated that Investment Decision, Financial Leverage, and Liquidity only account for 76 percent of the variation in ROA, while the remaining 24 percent is explained by other factors not accounted for in the model.

Correlation

The study assessed the degree of correlation between investment choice variables and business performance, i.e. if investment decision proxies (Investment Decision, Financial Leverage, and Liquidity) improve firm performance.

Table 3: Correlation Analysis

	ROA	LEV	INV	LIQ
ROA	1.000000	-0.147375	0.060887	-0.039312
LEV	-0.147375	1.000000	-0.012535	0.144343
INV	0.060887	-0.012535	1.000000	0.096180
LIQ	-0.039312	0.144343	0.096180	1.000000

Source: Author's Computation (2020)

The result in Table 3 is both fascinating and reasonable. It demonstrates that, at 0.01 confidence interval, there was a substantial and positive, albeit modest, association between ROA and new investments (R = 0.060): a negligible and negative link with financial leverage (R = -0.147) and liquidity (R = -0.039). There was also a good, significant, and positive correlation between Liquidity and Investment Decision (R =.096), as well as a positive correlation between Financial Leverage and Liquidity (R =.144), but a negative correlation between Leverage and Investment (R =-.012).

Coefficients Result

Table 4: Coefficient Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LEV	0.000346	0.000150	2.311235	0.0229
INV	-0.026391	0.004688	-5.629158	0.0000
LIQ	-0.008028	0.003787	-2.119971	0.0366
C	0.675450	0.008589	78.64212	0.0000

Source: Author's Computation (2020)

Table 4 illustrates that financial leverage has a positive influence on return on assets whereas there is a negative relationship between return on asset and investment choice and liquidity. Significant tests (T-tests and P-values) demonstrated that all of these associations were significant; hence, the study was designed to determine the effect of investment decisions on the performance of selected firms listed on the Nigeria Stock Exchange. When Investment Decision, Financial Leverage, and Liquidity are all zero, the space allocation value is 0.675, according to the regression results. It also demonstrated that increasing Investment Decision by one unit while holding other parameters (Financial Leverage and Liquidity) unchanged results in a 0.02639 fall in ROA. Holding all other variables constant, a unit drop in Financial Leverage results in a 0.000346 rise in ROA, whilst a unit increase in Liquidity results in a 0.008028 decrease in ROA.

5. CONCLUSION AND RECOMMENDATION

Conclusion

This study examined the impact of investment decisions on the performance of 20 selected firms listed on the Nigerian Stock Exchange using the Pooled-Ordinary Least Square Method. The findings show that financial Leverage positively influences the return on assets while a negative relationship exists between return on asset and investment decision and liquidity. This result significantly shows the effect of efficient use of resources by managers of the firms selected.

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Recommendation

It is recommended that investment decisions be made in a timely, appropriate, and dynamic manner in order to generate long-term economic activities.

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TRENDS OF SELECTED MACROECONOMIC VARIABLES AND SELECTED CONSTRUCTION MATERIALS PRICES BETWEEN 2008 AND 2019

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ABSTRACT

The prices of construction materials are going up every day and this can be attributed to the fluctuations in the macroeconomic environment prevailing in the Nigerian economy. This study aims to investigate the trends of some selected macroeconomic variables and some selected construction materials prices in Nigeria. The macroeconomic variables used in this study are; inflation rate, exchange rate and interest rate, while the selected construction materials used in the study are; cement, sharp sand and granite. The data used for this study were quarterly data for a period of 11 years ranging from 2008 to 2019, obtained from published sources. The data for the construction materials were gotten from the Nigerian Institute of Quantity Surveyors Quarterly Journal. Data on inflation rate, exchange rate of Naira to United States (US) dollar and interest rate were extracted from the annual reports and statistical bulletin of both the Central bank of Nigeria (CBN) and National Bureau Statistics (NBS). The findings from this study discovered that the trends of both the macroeconomic variables and the prices of the construction materials were unstable due to the macroeconomic situation in the country. The study recommended a reduction in import duties, government to encourage local production of construction materials, bringing down exchange rate down to the barest minimum, reduction in the interest rate by the banks, and government should create policies that would stabilize the macroeconomic variables in the economy.

Keywords: Construction Cost, Construction Industry, Construction Material, Macroeconomic Variables, Nigeria

INTRODUCTION

The construction industry is very important in any economy because is usually regarded as the stimulant of economic growth and development since it indicates the level of a country's prosperity. One of the challenges confronting the construction industry is the rapid up and down movement of the construction materials prices. Li (2001) believed that the volatility or fluctuations in the macroeconomic variables are some of the factors militating against the construction materials prices and pushed the cost of the construction project up thereby transferred major risk to all parties involved in the construction process.

According to Ashuri and Lu (2010), volatility or fluctuations in the macroeconomic environment in any economy ultimately results in construction cost of construction projects going up, which does not occur well for the economic sustainability and development of any country. Other effects of volatility in the economic variables in a given environment are changes in contractor's profit margins; delay in project delivery, time overrun and cost overrun, to mention but a few (Chappell, Cowlin & Dunn, 2010). The importance of construction materials cannot be overemphasized; this is because when construction materials are put together, they form the purpose of any construction structure. To Akanni (2008) and Udosen and Akanni (2010), no engineering field can do without the use of construction materials, which shows the importance and significance of this study.

The construction material industries are very important contributors to the national economy of any nation as their outputs govern both the rate and the quality of the construction works. Generally, it has been established from a reliable source that the construction materials and the construction components constitute between 35 to 65 percent of the total construction cost (Windapo & Cattell, 2010). The construction material is recognized as an important component of the construction process because it constitutes a larger proportion of project cost, and equally have a great effect on the output and development of the construction industry.

The effect of the macroeconomic environment such as inflation rate, interest rate and the exchange rate of the Naira to other currencies in the world on the construction materials prices cannot be overemphasized. One of the most important aspects affecting construction materials is cost and availability and in most cases, the purchasing cost of the construction materials in a given project accounted for about 60 percent of the total cost of such a project (Mogbo, 1999; Kern, 2004).

According to Akanni and Oke (2012), the problem of the high cost of the construction materials can be traced to the 1970s and the situation deteriorated with the introduction of the structural adjustment program (SAP) in 1986, all these incidences placed a high premium of the cost of the construction materials which now accounted to almost seventy percent of the construction cost. The impact of the SAP policies of the government in 1986 brought an increase in the inflation rate, as well as other macroeconomic variables such as exchange rate and interest rate to mention but a few (Umeora, 2010). Many of our construction materials are imported and they involved foreign input such as machinery and spare parts, now that our national currency suffers devaluation, this is having a serious effect on the construction industry and the economy in general.

However, several studies have been carried out on the cost of the construction projects in Nigeria but none has addressed the trends of the construction materials prices and the macroeconomic factors (Akanni, 2008; Oke & Omotilewa, 2014). This study is very important to the construction industry and the economy because of the vital contributions and importance of the variables that are involved in the study.

LITERATURE REVIEW

Construction materials are very significant to the construction industry and the economic development of any nation. Construction materials refer to any material used in the construction proposes. Most of these construction materials occurred naturally in ancient times and examples include stone, wood, straws, clay and brick (Akanni, 2006; Taylor, 2013). Awareness and advancement in technology at the beginning of the 20th century brought about the introduction of better performing and durable construction materials into the construction sectors worldwide, Examples of these materials are reinforcement concrete, steel, plastics, and metal to mention but a few (Taylor, 2013). To Omange & Udegbe (2000), construction materials as an indispensable resource constitute about 60 percent of the total cost of construction project cost and this makes the construction material an important factor in construction projects execution.

The materials contribute significantly to the quality and the cost of the construction work, from the beginning to the completion stage (Akanni & Oke, 2012). Jagboro and Owoeye (2004) were of the opinion that there is a multiplier effect on the construction industry anytime there is instability in the prices of construction prices and in Nigeria, over the years there has been an upward movement in the general price level in the country including the construction materials prices. In Nigeria, there is a greater dependence on importation of the construction materials and this has been on increase even since the era of the oil boom and this has led to an

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upward trend in the movement of the cost of construction materials prices (Okupe, 2000). Crude oil cost, energy cost, local taxes and charges, cost of fuel and power supply, high running cost, high prices of raw materials, cost of transportation and high cost of labour were found to be the major factors of price increase of the construction materials in most of the developing countries of Africa (Danso & Obeng-Ahenkora, 2018).

Demand and supply of products have great implications on the price or its cost. For instance, on the demand and supply of the product which has a relationship on the price; Bisiriyu (2008), gave the example of cement, that the domestic demand of cement is 18 million metric tonnes annually, while the actual supply locally is about 6.5 million metric tonnes; leaving a shortfall of 11.5million. The implication of this phenomenon is that because of the shortage in supply, the price of the cement will go up, from the theory of demand and supply. The United Nation's Macroeconomic variables are great factors influencing the price of construction materials. Macroeconomic indicators are the economic statistics that show the performance economic in some areas that lead its development, such areas are: labour market, trade, industry and other economic criteria, which are commonly published regularly at the specific times by government agencies, non-profit organizations and the private sector (Asaolu & Ogunmakinwa, 2011).

On the macroeconomic variables and construction materials prices, according to Windapo, Ogunsanmi and Iyagba (2004), one of the problems confronting the construction industry in Nigeria over the years has been rapid inflation rate, high cost of the construction materials and this situation has caused high-cost construction housing developments thereby degenerated to the acute shortage of housing with millions of the middle and low-income earners finding it difficult to have the house of their own thereby being priced out of the market for homeownership in the country which is very sad. Another problem caused by the high inflation rate in the country is the problem of project abandonment, many uncompleted buildings or projects are scattering everywhere in the country, causing insecurity and social problems to the environment (Idoro & Jolaiye, 2010).

Exchange rate as a macroeconomic variable is also very crucial in the determination of the construction materials prices in Nigeria because most of the construction materials are imported. Exchange rate is the amount for which one currency is exchanged for the currencies in the world. A market value or the amount at which the currency of a given country will be changed for another country's currency will depend on some factors and one of these factors is the macroeconomic variable indices prevailing in these countries. Also, the currency will tend to become more valuable whenever the demand for it is greater than the available supply. On the exchange rate, according to Adedipe (2004), the problem Nigeria as a country is a net importer, whose external earnings derive largely from one product which is crude oil.

Interest rate also is a very important determinant of construction materials prices. According to Acha & Acha (2011), the developmental role of interest rate is very important when we are talking about the economic development of a country, because of the economic, social and environmental linkage existing between the financial and real estate sectors of any economy. On this issue of interest rate role to the economic development, Colander (2001) contributions were that the channelling of saving in a given economy into the financial sector and the willingness of the investors to incur liabilities depend highly on the interest rate to be charged by the financial institutions at any given period.

METHODOLOGY

This section presents the method adopted in the study. The section presents the research design and the sources of data used in the study. The section also defined the variables used and others parameters that will enhance the successful outcome of the study. The objective of this study is to investigate the trends of some selected construction materials and some selected macroeconomic variables between 2008 and 2019.

Research Design and Sources of Data Collection

The research design used was the ex-post facto research design, also known as a causal-comparative research design because the researcher does not have any direct control over the independent variables in the study. The research design of any study gives the plan, blueprint, structure, or strategy on how to carry out such a study. The type or the nature of research work will determine the type of research design to be used. The study in question made use of time series data which are secondary data that was why ex-post facto research design was used. Data used were obtained from textbooks, internet sources, and journals etc. Data for the cost of construction materials prices for the period under review were obtained from the quarterly journal of the Nigerian Institute of Quantity Surveyors of Nigeria (NIQS). The annual exchange rate of Naira to US dollar, interest rate, and inflation rate were obtained from annual reports and the statistical bulletins of both the Central Bank of Nigeria and the National Bureau of Statistics.

Data Presentation, Analysis and Discussion of Findings

The data presentation, analysis of the data presentation and discussion of the finding were done in this section of the study. It starts with descriptive statistics and then followed by trends analysis, followed by discussion of findings.

RESULTS, PRESENTATIONS AND DISCUSSION

Descriptive Statistics of Measured Variables

Table 1 below shows the descriptive analysis of the variables engaged in the study.

Table 1: Descriptive Statistics

	EXCH (₦ to 1$)	INF (%)	INT (%)	PCE (₦ per 50kg)	PGR (₦ per 30 tons)	PSS (₦ per 10tons)
Mean	204.0496	11.85956	25.69173	1995.833	140625.0	27177.08
Median	155.9750	11.36430	25.44000	1850.000	145000.0	27000.00
Maximum	307.0000	18.50000	31.55000	2700.000	205000.0	35000.00
Minimum	116.5600	7.800000	17.58000	1600.000	115000.0	10500.00
Std. Dev.	71.54874	2.887772	3.775055	404.6056	14681.91	6937.019
Skewness	0.586380	0.444025	-0.015580	0.860064	1.603333	-0.692858
Kurtosis	1.595646	2.420614	2.192377	2.079454	8.863027	2.526735
Jarque-Bera	6.695156	2.248638	1.306452	7.612492	89.31558	4.288375
Probability	0.035169	0.324874	0.520364	0.022231	0.000000	0.117163
Sum	9794.382	569.2589	1233.203	95800.00	6750000.	1304500.
Observations	48	48	48	48	48	48

Source: Author's computation using CBN Fourth Quarter 2019 Statistical Bulletin and Quarterly Journal of the Nigerian Institute of Quantity Surveyors (NIQS)

From Table 1, the data sets for the study are Price of Cement (PCE), Price of Granite (PGR), Price of Sharp sand (PSS), Exchange Rate (EXCH), Interest Rate (INT) and Inflation Rate (INF).

The price of sharp sand per 10tons on average was ₦27,177.08 and within these periods, it had a maximum of ₦35,000 and a minimum of ₦10,500. The price of granite per 30tons on average

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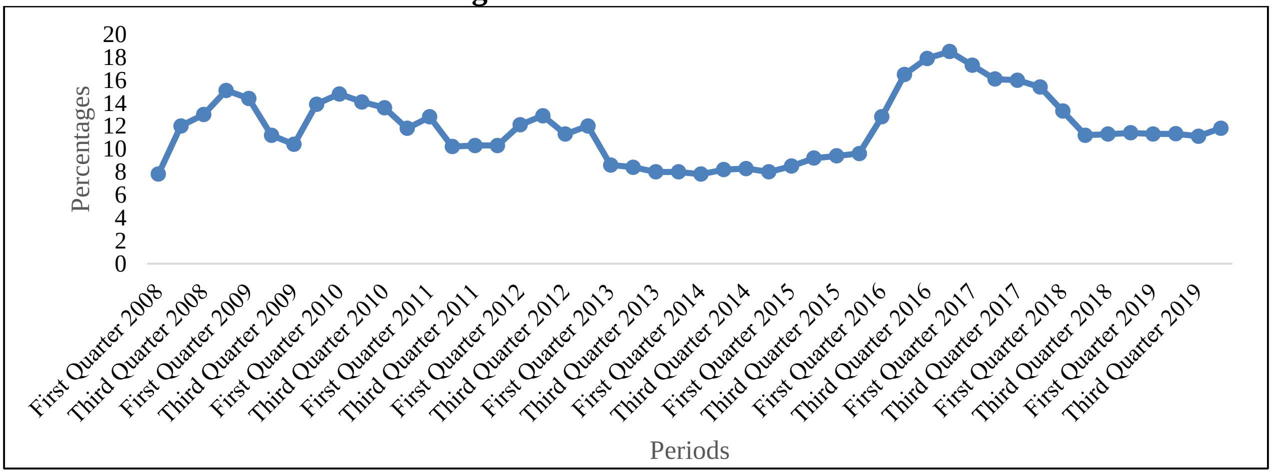
was ₦140,625 and within these periods, it had a maximum of ₦205,000 and a minimum of ₦115,000. the period. Exchange rate on average was ₦204.05 and within these periods, it had a maximum of ₦307 and a minimum of ₦116.6. The inflation rate on average was 11.9% and within these periods, it had a maximum of 18.5% and a minimum of 7.8%.

The Jarque-Bera test is a type of long-range multiplier test that is used to test the normality of residuals from a running regression. It matches the Skewness and Kurtosis of data to see if it matches a normal distribution. Its decision criteria state that if P-value is greater than 0.05, we fail to reject the null hypothesis (H_0) that it is normally distributed but if P-value is less than 0.05, accept the null hypothesis (H_0) therefore, it is not normally distributed. Hence, table 1 above shows that the Price of Cement (PCE) and Price of Granite (PGR) are not normally distributed since all their probabilities are less than 5% (< 0.05) therefore we reject the null hypothesis (H_0).

Trend Analysis for the Macroeconomic Variables in the Study

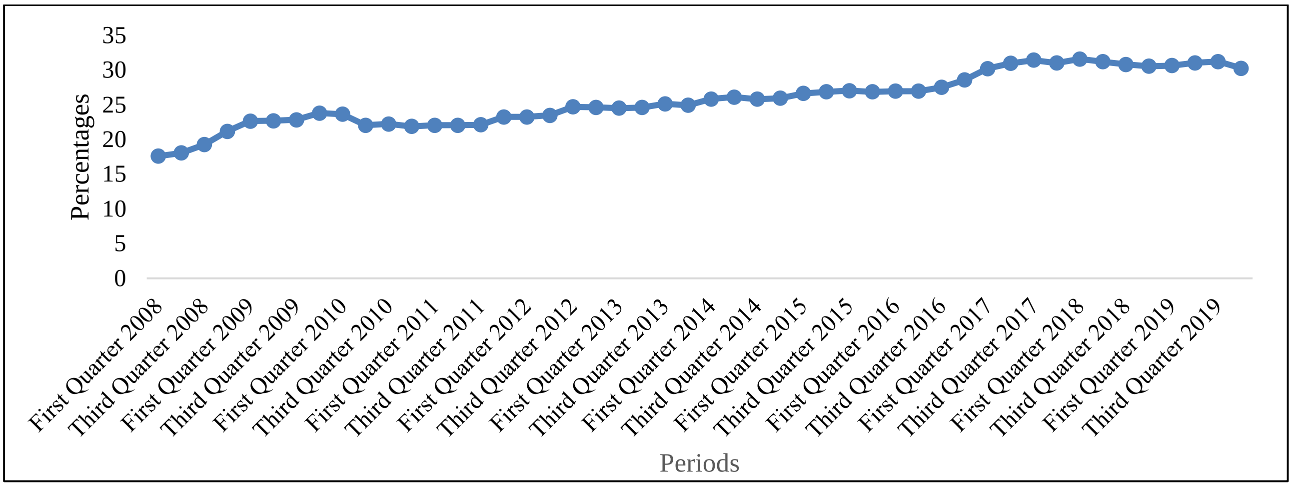
Figure 1 shows the inflation rate trend in the Nigerian economy for the period of 11 years from 2008 to 2019. The graph shows an upward trend; the graph also shows headline inflation to be 8 percent (lowest point) at the beginning of the year 2008 and about 11.8 percent at the end of the period in the year 2019. The highest inflation rate was experienced in the year 2016 with an inflation rate of 18 percent.

Figure 1: Inflation Rate



Source: CBN Fourth Quarter 2019 Statistical Bulletin

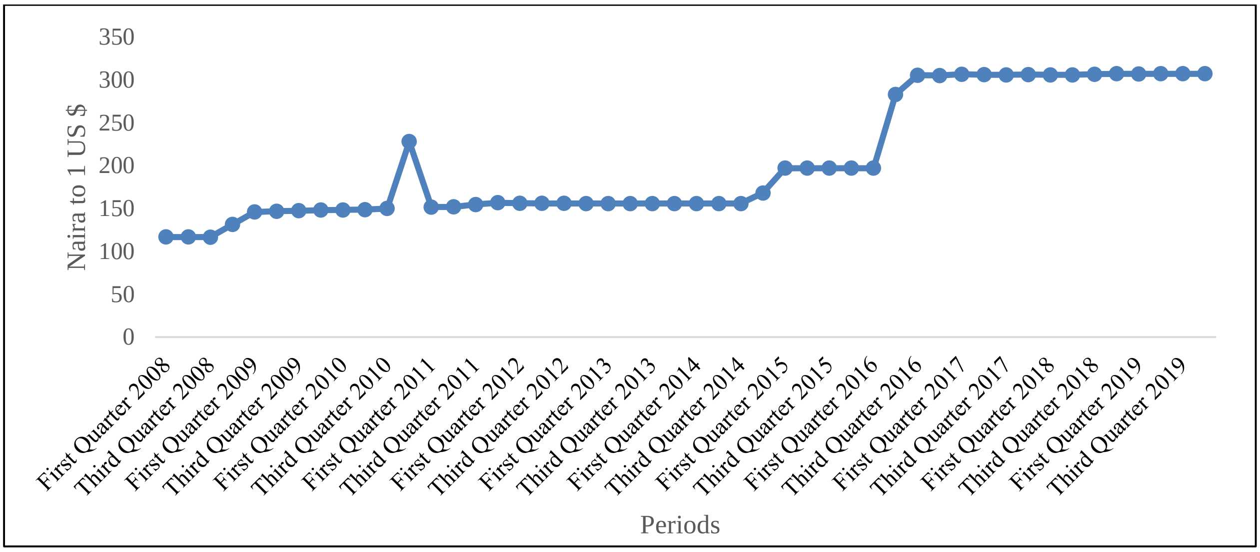
Figure 2: Interest Rate



Source: CBN Fourth Quarter 2019 Statistical Bulletin

Figure 2 shows the interest rate to be about 17.5% (lowest point) at the beginning of the period (2008) and was 30.2% at the end of the period (2019), indicating an increase of about 12.7% over the period. The period was characterized by upward and downward movements with the lowest interest rate recorded in the first quarter of 2008 and hitting a peak of slightly above 30% in the first quarter of the year 2019.

Figure 3: Exchange Rate



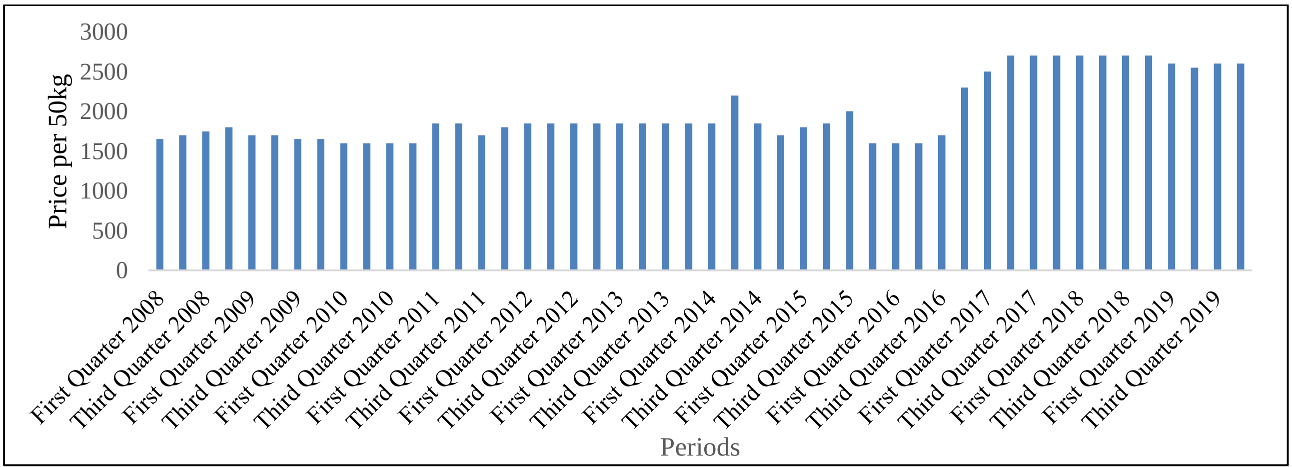
Source: CBN Fourth Quarter 2019 Statistical Bulletin

Figure 3 shows the general trend in exchange rate of Naira (₦) to US Dollar ($) prevalent in the Nigerian economy within the period under review. In the year 2008 exchange rate was ₦116.73 while in the year 2019 the exchange rate was ₦306.95, the highest exchange rate through the period under review.

Trends of the Construction Materials Prices

This section presents the trend analysis of the three construction material prices under consideration in this study; they are prices of cement, prices of sharp sand and pries of granite from the first quarter of 2008 to the fourth quarter of 2019.

Figure 4: Prices of Cement



Source: Quarterly Journal of the Nigerian Institute of Quantity Surveyors (NIQS

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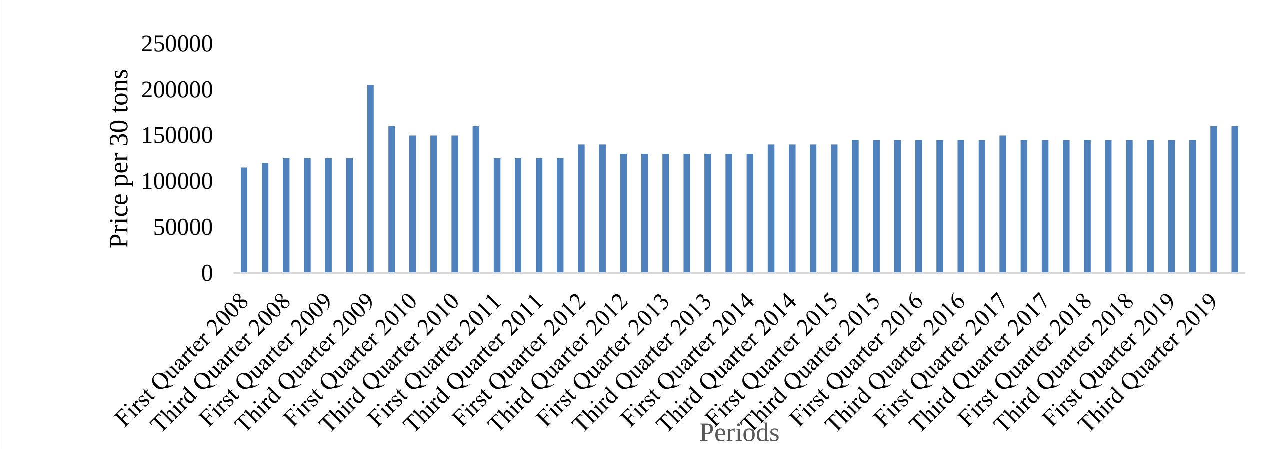
Figure 4, shows the general trend in cement price which occurred in the Nigerian economy in the period under review. The graph shows cement price per 50kg bag to be a little above ₦1600 at the beginning of the period (2008) and around ₦2600 at the end of the period (2019).

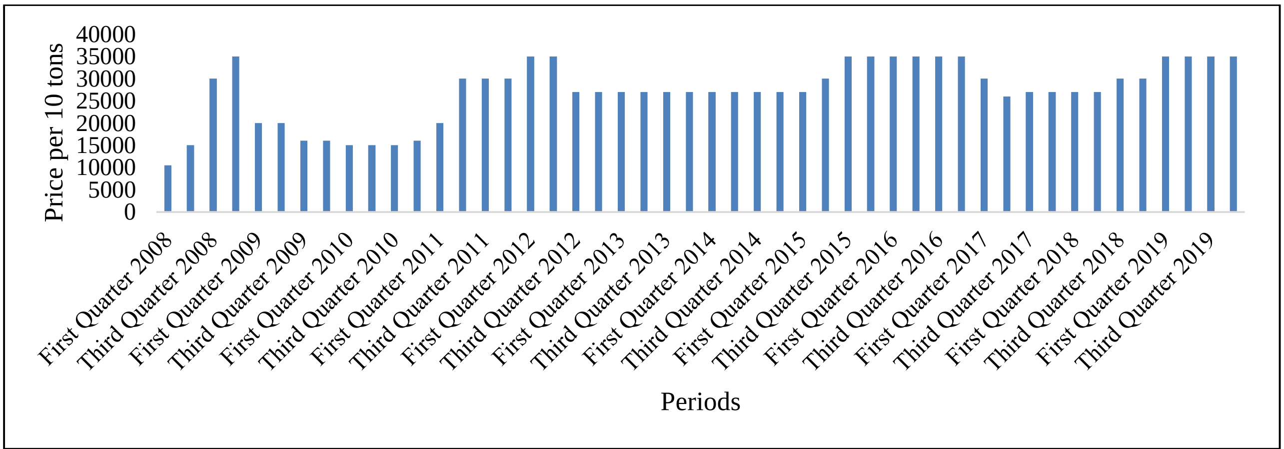
Figure 5: Prices of Granite



Source: Quarterly Journal of the Nigerian Institute of Quantity Surveyors (NIQS)

Figure 5 shows the trend of the granite price from 2008 to 2019. The trend was unstable through the period under review. This can be attributed to the economic conditions in the country whereby making the prices of goods not stable.

Figure 6: Prices of Sharp Sand



Source: Quarterly Journal of the Nigerian Institute of Quantity Surveyors (NIQS)

Figure 6 shows the general trend in the prices of sharp sand in the Nigerian economy in the period under review. Overall, an upward trend in price can be observed for the period under study. The graph shows sharp sand price per 10 tons to be a little above ₦10,000 at the beginning of the period (2008) and around ₦35,000 at the end of the period (2019)

Discussion of the Findings

The findings from the study revealed that there were upward trends in both the macroeconomic variables and the construction materials prices throughout the period under study. The graphs from this study also revealed that there is a relationship between the macroeconomic variables and the construction materials prices. When the macroeconomic variables in the economy increase the construction materials prices also increase. This shows that the performances of the macroeconomic variables have a bearing on the construction materials prices. This discovery follows the study by Ashiri and Lu (2010) that volatility in the macroeconomic environment in any economy will result in construction materials price fluctuations, which is not good for economic development.

The inflation rate trend was upward throughout the period under study, together with the trends of all the construction material prices. The inflation rate has a positive relationship with the construction materials prices. This follows the theory of price, and also the theories of demand and supply. The theory of price says, if the prices of goods and services in any economy increased, the demand would reduce while the supply would increase, vice-visa. Interest rate trend in the study has upward trend with the construction materials prices trend, interest rate and construction project cost are related because in macroeconomic theory when the interest rate increase the investors will be deprived to invest and this will reduce the production of construction products; demand would force the prices of the construction product to go up.

The exchange rate was not stable throughout the period under review and at the same time construction material prices are equally going up; this reveals the relationship between the construction prices and the exchange rate especially when most of the materials were imported materials.

CONCLUSION AND RECOMMENDATIONS

This study investigates the trends of selected macroeconomic variables and selected construction materials prices in Nigeria. The trends of the variables in the study both the macroeconomic variables and construction materials prices were not stable through the period under review. The study also shows a positive relationship between the macroeconomic variables and the construction material prices in Nigeria.

The recommendations of the study are as follows: government must diversify the economy to avoid total dependence on crude oil as the only major source of review, the government must encourage local production of construction materials to discourage importation of the construction materials, and policy must be put in place to make the macroeconomic variables to be stable.

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OIL PRICE AND EXCHANGE RATE FLUCTUATIONS IN A COVID-19 RAVAGED ECONOMY: A WAVELET-BASED ANALYSIS OF NIGERIA***

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ABSTRACT

The outbreak of the current pandemic increased the literature of global economic crises following the collapse of several spheres of the global economies. However, of all these affected aspects of the global economies, the energy and foreign exchange markets seemed to be the most affected due to the historic collapse of energy prices and deterioration of exchange rates in the global market. Therefore, this actuated the rationale to empirically investigate the comparative analysis of the oil-exchange rate relationship for pre and during COVID-19 pandemic in Nigeria by employing the wavelet analysis approaches. Our findings unveiled strong support of variation and stability in oil price and exchange rate over different time and frequency horizons. Also, the wavelet coherence results showed that there was bidirectional causality in the short run during the pre-COVID-19 pandemic. However, the results of the COVID-19 sample revealed the non-existence of interdependence between the variables. Furthermore, we checked for the robustness of our results and unveiled a one-way directional effect from oil price to exchange rate in the short (medium) run of the COVID-19 (pre-COVID-19) pandemic sample. Our results offered adequate policy reference on exchange rate regime management and the adoption of less pro-cyclical macroeconomic policies.

Keywords: Oil Price, Exchange Rate, Continuous Wavelet Transform, COVID-19 Pandemic.

JEL Codes: C49, E5, F31, G15, Q43

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INTRODUCTION

In the history of global economic crises, the recently discovered global pandemic which erupted in China around December 2019 termed coronavirus 2019 (COVID-19) happened to be the greatest of all. The outbreak of the COVID-19 pandemic claimed many lives in the most affected countries including Nigeria with accumulating cases of 58,198 and cumulative death of 1,106 as of September 27, 2020. The global literature of the COVID-19 pandemic features significant studies on several aspects of the global economies as researchers are more concerned about its consequential effects on financial markets (see, for example, Albuquerque *et al.*, 2020; Ashraf, 2020a, 2020b; Baker *et al.*, 2020; Conlon *et al.*, 2020; He *et al.*, 2020; Ji, Zhang and Zhao, 2020; Mishra *et al.*, 2020; Narayan *et al.*, 2020; Phan and Narayan, 2020; Salisu and Akanni, 2020; Salisu and Vo, 2020; Xiong *et al.*, 2020), energy market (see, inter alia, Devpura and Narayan, 2020; Iyke 2020a; Mensi *et al.*, 2020; Narayan, 2020), foreign exchange market (see, Iyke, 2020b; Villarreal-Samaniego, 2020), economic uncertainty (see, Altig *et al.*, 2020; Sharif *et al.*, 2020) and connection between energy and financial market (Prabheesh *et al.*, 2020; Salisu *et al.*, 2020).

However, the energy and foreign exchange markets occurred to be the most affected markets in Nigeria due to persistent volatility and depreciation in the respective markets during the COVID-19 pandemic. Therefore, this necessitates the investigation of oil exchange rate dynamics in Nigeria during the COVID-19 pandemic. Accordingly, metrics by the Apex financial institution in Nigeria on Bonny light crude oil price shows that the domestic oil price experienced a historic collapse to US$7.15 as of April 21, 2020, which led to speculations of exchange rate devaluation in Nigeria during this period. The theoretical linkage of oil-exchange rate nexus holds that fluctuation in exchange rate response distinctively to upward and downward movement in oil price for oil-exporters and importers (Golub, 1983; Krugman, 1983; Yang *et al.*, 2017; Olayungbo, 2019; Reboredo, 2012; Ghosh, 2011; Villarreal-Samaniego (2020); Muhammad *et al*, 2012; Adebayo, 2020; Salisu and Mobolaji, 2013). Meanwhile, focusing on the empirical literature of oil-exchange rate co-movement in Nigeria as an oil-exporting country, the results have been diverse (Iwayemi & Fowowe, 2011; Abubakar, 2019; Muhammad *et al.*, 2012).

Putting these backdrops in mind, it is important to observe the direction of the relationship between the variables across different time horizons. Also, the oil exchange rate dynamics seemed not in the realm of the recent global pandemic literature. Therefore, this study claims to extend the extant review of the oil-exchange rate nexus in the following innovative ways. First, it investigates the oil-exchange rate nexus for pre and during the COVID-19 pandemic in Nigeria. Second, none of the recent empirical studies on oil price and the exchange rate has considered the relationship between the variables for pre-global pandemic and during the global pandemic which has policy implications for appropriate policy verification by the monetary authorities (see Tiwari and Albulescu, 2016; Ding and Vo, 2012; Reboredo and Rivera-Castro, 2013 and Salisu and Mobolaji, 2013). Third, this study adopts the wavelet-based analysis to conduct the comparative analysis for the empirical investigation. The concluding sections of this paper are arranged as viz; the next immediate section presents the empirical literature. This is followed by the methodology section. Section 4 entails the discussion of results and the last section concludes and provides policy recommendations.

LITERATURE REVIEW

Theoretical Model

The theoretical relationship between oil price and exchange rate can be expressed by the law of one; since crude oil is a homogenous and globally traded commodity in the international market which is usually pegged to the US dollar. Thus, oil price quoted in a foreign currency is presented as;

$$p^* = e + p \qquad (1)$$

Equation (1) present the logarithm of oil price in foreign currency (p^*), the logarithm of oil price quoted in US dollar (p) and the logarithm of the nominal exchange rate of US dollar. The theoretical understanding of the oil exchange rate nexus is also given by Golub (1983) and Krugman (1983). For instance, the former viewed the nexus from a wealth distribution mechanism perspective while the latter speculates that the oil-exchange rate nexus could either be positive or negative which is a function of the benefits of oil transactions on the balance of payment of oil-exporting and importing countries amid upward oil price movement. Furthermore, the oil-exchange rate nexus can also be expressed through the price of one good such that the aggregate price level of goods is partitioned into traded and nontraded good prices. Therefore, the log-linear model specification of the domestic country and foreign country consumer indices are given as;

$$p = (1 - \Phi)p^T + \Phi p^N \qquad (2)$$

$$p^* = (1 - \Phi^*)p^{T^*} + \Phi^* p^{N^*} \qquad (3)$$

Here, the $p^T(p^{T^*})$ and $p^N(p^{N^*})$ represent the price indices of traded and nontraded foods for the domestic(foreign) country, respectively, whereas $\Phi(\Phi^*)$ denote the weight share of expenditure of nontraded goods in the domestic(foreign) country. In summary, the nominal exchange rate can therefore be express in an aggregate form through the combination of equation (1) to (3) as;

$$e = \left(p^{N^*} - p^N\right) + (1 - \Phi^*)\left(p^{T^*} - p^{N^*}\right) - (1 - \Phi)(\, p^T - p^N) \qquad (4)$$

Equation (4) is established with the assumption that the weight share of expenditure of nontraded goods are the same for the domestic country and foreign country as denoted by $\Phi \approx \Phi^*$, such that the impact of oil price on exchange rate relies on the impact of the relative price of traded goods in the domestic nation relative to the foreign economy. Thus, given that the domestic country is an oil import-dependent nation, then an upward movement in oil price will increase the price of traded goods in the local country relative to the overseas nation. Therefore, the currency of the domestic country is expected to depreciate. However, the currency of the domestic country will appreciate if it is an oil-exporting country.

From a monetary model perspective, the oil-exchange rate nexus can be established through the specification of demand for money $m(m^*)$ in the domestic (foreign) country as a function of aggregate price level $p(p^*)$, real income $y(y^*)$ and interest rate $i(i^*)$and the regressors' effects on money demand is uniform for both the domestic country and foreign country. Therefore, the nominal exchange rate model in equation (1) is re-specified following the interest rate parity framework as;

$$e = (m - m^*) + (y - y^*) \qquad (5)$$

Thus, equation (5) represents the long-run monetary model of exchange rate determination that can conciliate oil price as an additional regressor that can predict exchange rate movements (see, for example, Lizardo & Mollick, 2010).

Empirical Review

The literature of oil price-exchange rate dynamics has enjoyed extant empirical review through the evaluation of the relationship from oil importing and exporting countries perspectives. However, the broad literature of oil price-exchange rate nexus can be categorised into different dimensions based on the variety of econometric methods employed by prior studies (GARCH, linear and non-linear ARDL and wavelet-based methodology).

From the first category, Lizardo and Mollick (2010) hypothesized the inclusion of oil price in the monetary model of exchange rate. Through this, the study developed forecasting models for oil price and US dollar exchange rates and it revealed that in the presence of positive shocks in real oil price, the US dollar depreciates with respect to the currencies of oil-exporting countries like Canada, Mexico and Russia while the US dollar appreciates against the currencies of oil-importing countries, for example, Japan, given that there is an increase in real oil price. In the case of Nigeria, Muhammad *et al.* (2012) also employed the GARCH and EGARCH models and concludes that an increase in oil price commands depreciation of Nigerian naira vis-à-vis the US dollar-based on the daily observations from January 2, 2007, to December 31, 2010. Similarly, Villarreal-Samaniego (2020) examined the relationship between COVID-19 variables, oil price and exchange rates of three oil-exporting countries and two oil-importing countries. The study applied the autoregressive distributed lag (ARDL) model and concludes that oil price negatively influences the exchange rate of the oil-exporting and importing countries. Using the same methodology, Musa *et al.* (2020) also revealed that oil price has a negative and significant influence on Nigeria's exchange rate for the period of 1983 to 2017.

On the second arm of our categorization, Beckmann and Czudaj (2013) explored the interdependence between oil price and exchange rate for oil-exporting and importing countries using the Markov Switching Vector Error Correction Model. The result of the study reveals that the currencies of the oil-exporting countries appreciate following positive shocks in oil price and at the same time, the nominal exchange rate of both the oil-exporting and importing countries depreciate amid oil price

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increase. Salisu and Mobolaji (2013) reviewed the relationship between oil price and Nigerian naira vis-à-vis the US dollar. The study employed the Narayan and Popp (2010) technique to discover the inherent structural breaks in oil price and exchange rate series and the discovered breaks that correspond to the period of the global financial crisis and foreign exchange market crisis in Nigeria. To account for the return and volatility transmission effects between oil price and exchange rate, the study employed the VAR-GARCH model and reveals evidence of bi-causal return and spillover transmission effect between the variables. Bal and Rath (2015) developed a comparative study on oil price-exchange rate dynamics for China and India using the nonlinear Granger causality approach. Through this, the study confirms evidence of a bi-causal relationship between exchange rate and oil price for the two countries. However, the additional analysis of the study shows that using the GARCH (1,1) model to account for persistence variances of the variables, the result of India remains unchanged while evidence of one-way causality from exchange rate to oil price surface in China context.

Conceptualizing on the wavelet analysis methodology, Tiwari *et al.* (2013); Tiwari and Albulescu (2016) employed the wavelet approach in the Indian context to evaluate the oil price-exchange rate relationship. Although the studies concentrate on the same country, the results of these studies differ. The result of the former confirms symmetric and asymmetric bi-directional causality for oil price and exchange rate for only higher time scales while the latter affirms the presence of one-way causality from oil price to exchange rate in the short run and another way around in the long run. Although, these studies conclude that the nature of oil price-exchange rate interdependence is nonlinear and asymmetric in India. Reboredo and Rivera-Castro (2013) developed the multiple wavelet analysis for oil price-exchange rate nexus for pre and during the global financial crisis. The study report absence of interdependence between the variables before the advent of the global financial crisis but there is evidence of in-phase and out-phase effects between oil price and exchange rate during the crisis. More recently, Adebayo (2020) employed the wavelet methodology for the Nigerian economy to determine the direction of causality between oil price and Nigerian currency vis-à-vis the US dollar. By utilising the monthly time series dataset from January 2007 to March 2020, the study report evidence of persistent volatility in oil price and exchange rate over different time and frequency scales. The wavelet coherence result also proves that there is evidence of a negative relationship between the variables. Furthermore, the additional results of the study through the wavelet-based Granger causality test support bidirectional movement between oil price and exchange rate in Nigeria.

In summary, it is not a gainsaying to resolve that empirical literature of oil price-exchange rate nexus are conclusive on the premise that the relationship between oil price and exchange rate during the turbulent period usually outmatch that of the pre-crisis period especially studies that utilized the wavelet analysis. Therefore, it becomes imperative to compare the relationship between oil price and exchange rate for pre and during the COVID-19 pandemic in Nigeria.

METHODOLOGY

Data Description

To assess the relationship between oil price and exchange rate in Nigeria, we employ the bonny light crude oil price (proxied for domestic oil price) and the official exchange rate which measures the cost of Naira to 1 US dollar. The dataset for the two series was sourced from the Central Bank of Nigeria (CBN) website via https://www.cbn.gov.ng/rates/DailyCrude.asp (for bonny light) and https://www.cbn.gov.ng/rates/ExchRateByCurrency.asp (for nominal exchange rate). The high-frequency daily data for the full sample covers the period from October 3, 2019, to September 9, 2020. Following the announcement of outbreak COVID-19 pandemic in Nigeria on February 27, 2020, by the Nigeria Centre for Disease Control (NCDC), we partition the full sample into the pre-COVID-19 pandemic sample (i.e., the period before the announcement of COVID-19 cases) and

COVID-19 pandemic sample (i.e., the period after the outbreak of COVID-19 pandemic in Nigeria). Therefore, the former starts from October 3, 2019, to February 26, 2020, while the latter extends from February 27, 2020, to September 9, 2020. In addition, the return series of exchange rate and oil prices are computed as follows;

$$EXRR_t = \left[\log\left(\frac{EXR_t}{EXR_{t-1}}\right)\right] * 100 \quad (6)$$

$$OPR_t = \left[\log\left(\frac{OP_t}{OP_{t-1}}\right)\right] * 100 \quad (7)$$

Where: EXRR and OPR are the returns series of exchange rate (EXR) and oil price (OP), respectively.

Methods

The adoption of wavelet methodology to assess the oil price-exchange rate interdependence follows arguments given by prior studies (see, for example, Aloui, *et al.* 2018; Reboredo and Rivera-Castro, 2013; Tiwari and Albulescu, 2016; Tiwari *et al.*, 2013; Uddin *et al.*, 2013, inter alia) that the approach outmatches other fundamental econometric techniques.

The Continuous Wavelet Transforms (CWT)

Based on the foregoing vantages, we express our model following Morlet's specification of continuous wavelet transform as follows;

$$N_r(p,q) = \int_{-\infty}^{\infty} r(t)\frac{1}{\sqrt{q}}\Phi\left(\frac{t-p}{q}\right) \quad (8)$$

Equation (1) is a wavelet transform of $N_r(p,q)$ which is attained by constructing a definite wavelet Φ $(.)$ versus the time sequence $r(t)\epsilon L^2$ $\mathbb{R}$.

The continuous wavelet transforms decompose and rebuild the series $r(t)\epsilon L^2$ $\mathbb{R}$ by reconstructing equation (1) as;

$$r(t) = \frac{1}{C_\Phi}\int_0^{\infty}\left(\int_{-\infty}^{\infty} N_r(p,q)\Phi_{p,q}(t)du\right)\frac{dq}{q^2}, q > 0 \quad (9)$$

Furthermore, the technique upholds the ability to divide the series into a time sequence as follows;

$$||r||^2 = \frac{1}{C_\Phi}\int_0^{\infty}\left(\int_{-\infty}^{\infty} |N_r(p,q)|^2 dp\right)\frac{dq}{q^2} \quad (10)$$

Where: $|N_r(p,q)|^2$ represent the wavelet power spectrum that predicts the level of movement of $r(t)$ from time to time.

Wavelet Coherence Transform (WCT)

The need to specify oil price and exchange rate in a lead/lag form becomes essential due to the objectivity to examine the interdependence between oil price and exchange rate. Thus, we developed a wavelet coherence by starting with the cross wavelet transform and cross wavelet power for the two variables. As demonstrated by Torrence and Compo (1998), the cross-wavelet transform is expressed for two-time signals $r(t)$ and $s(t)$ as follows;

$$N_{rs}(p,q) = N_r(p,q)N_s^*(p,q) \quad (11)$$

Where $N_r(p,q)$ and $N_s(p,q)$ stands for the two CWT of $r(t)$ and $s(t)$, respectively. p denotes the domain, q serves as the measure while * indicate combined conjugate. The cross-wavelet power is calculated through cross wavelet to transform as $N_r(p,q)$. The cross-wavelet power spectrum

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disentangles regions that have concentrated uniform density into two domains for each series. We take a step further to express the wavelet coherence transform for time and frequency domain so as to gather evidence of the interdependence between the two series over different scales. We establish the WCT as described by Torrence and Webster (1999) as follows;

$$Z^2(p,q) = \frac{\left|M\left(M^{-1}N_{rs}(p,q)\right)\right|^2}{M(M^{-1}|N_r(p,q)|^2)M(M^{-1}|N_s(p,q)|^2)} \quad (12)$$

Where M is the smoothing operator and the range of the squared wavelet coherence estimates is denoted by $0 \leq Z^2(p,q) \leq 1$ with a value close to 0 indicates a weak correlation while a value close to 1 shows a strong correlation. The Monte Carlo technique is adopted to estimate the wavelet coherence based on Torrence and Compo (1998) and Grinsted, Moore and Jevrejeva (2004) approach.

RESULTS, PRESENTATIONS AND DISCUSSION

Preliminary Analyses

Table 1 presents the descriptive statistics for the sub-samples. The descriptive statistics include the mean, maximum, minimum, standard deviation, skewness, kurtosis Jarque-Bera statistic and it shows that the Nigerian exchange rate depreciates for the two sampled periods although the highest depreciation is recorded during the COVID-19 pandemic. The EXRR for the two samples are positively skewed and leptokurtic than normal distribution and this is supported by the Jacque-Bera statistics suggesting the non-normal distribution of the return series. On the other hand, the mean values of OPR for the two samples report that oil price plunges on average with strong variation over time. It also indicates that the series is left-skewed and leptokurtic than normal distribution and it is supported by Jacque-Bera statistic for COVID-19 sample while the pre-COVID-19 sample upholds the null of normal distribution.

Table 1: Descriptive Statistics

	Pre COVID-19 Sample		**COVID-19 Sample**	
Variables	EXRR	OPR	EXRR	OPR
Mean	0.0001	-0.1292	0.1537	-0.1997
Maximum	0.0163	3.8803	21.3637	32.0603
Minimum	-0.0163	-6.372	-0.0163	-66.0451
Std. Dev.	0.0056	1.9391	1.8120	10.2502
Skewness	0.0000	-0.4603	11.6622	-1.4942
Kurtosis	8.6667	3.2004	137.0069	16.2649
Jarque-Bera	139.1481***	3.8472	107156.7***	1070.809***
Probability	0.0000	0.1461	0.0000	0.0000
Time Frame	October 3, 2019-February 26, 2020		February 27, 2020-September 9,2020	

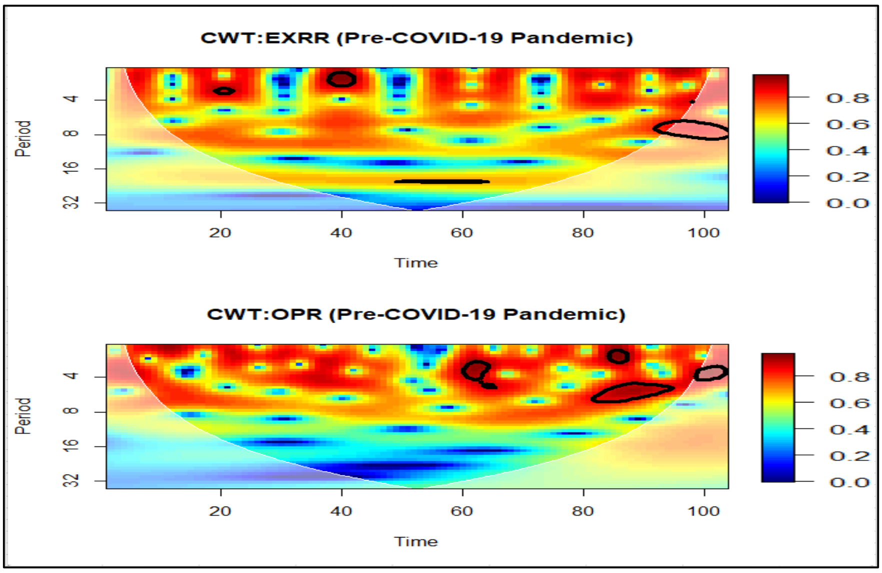
Note: *** denote significance at 1% level.

Continuous Wavelet Transform (CWT) and Wavelet Coherence Transform (WCT) for Pre-COVID-19 Pandemic Sample

From the CWT and WCT estimates, the X-axis represents the time scale, and it is code as; 0-20 (10/03/2019-10/31/2019); 20-40 (11/01/2019-11/28/2019); 40-60 (11/29/2019-12/30/2019); 60-80 (12/31/2019-01/28/2020) and 80-100 (01/29/2020-02/26/2020). The frequency periods of the series reflect on the Y-axis of each diagram where 0-4 represent short-run periods, 4-8 connote medium run periods while 8-16 is for the long run periods and 16-32 stands for the very long run periods during the pre-COVID-19 pandemic era.

The CWT analysis in Figure 1 shows the stability and variation in the series over different time and frequency domain views. The CWT for EXRR in the upper part of Figure 1 reveals the presence of strong variation at the early part of 10/03/2019-10/31/2019 and 11/01/2019-11/28/2019 in the short-run period while the latter part of the figure signal stability. In the long-run period, there is a stable variation between 11/29/2019 to 01/28/2020. While for OPR, the short run and medium run period shows strong variation from 11/29/2019-12/30/2019; 12/31/2019-01/28/2020 to 01/29/2020-02/26/2020. Also, the period between 11/01/2019 to 12/30/2019 shows stability in variation for OPR in the long run and the very long run periods. Based on these results, it is obvious that the CWT reveal the direction of variation and stability of the variables, however, the analyses did not reveal the lead and lag relationship-p between the variables, therefore, we proceed to evaluate the direction of the lead and lag effects between exchange rate return (EXRR) and oil price return (OPR) using the wavelet coherence transform (WCT).

Figure 1: Continuous wavelet power spectra transform (CWT) of exchange rate return (EXRR) and oil price return (OPR) for the pre-COVID-19 pandemic period in Nigeria.



Note: *The CWT for EXRR(OPR) is on the upper(lower) part of the figure as shown above. The thick black contour represents the significant level are 5% for the region in the cone of influence (COI). The code of the colour for the power varies from blue (low power) to red (high power).*

Figure 2 presents the wavelet coherence transform (WCT) spectrum analysis for return series of exchange rate (EXRR) and oil price (OPR) in the pre-COVID-19 pandemic era. The time intervals and the frequency bands of the WCT are used to interpret the co-movement between the series where in-phase effects signify that the variables co-move in the same direction and out-phase effects suggest that the variables move in the opposite direction. Focusing on the lead-lag effects of the variables in the cone of influence (COI), there is the presence of a low dependence relationship between the variables. However, there is the occurrence of strong interdependence between the variables in the short run for some period between 11/29/2019-12/30/2019 and 01/29/2020-02/26/2020.

In addition, within these regions, there is evidence of lead-lag phase relation where EXRR is leading and granger cause OPR within the period of 11/29/2019-12/30/2019 in the short-run period, whereas, OPR is leading and granger cause EXRR for the period covering 01/29/2020-02/26/2020 in the short run. This implies the existence of bidirectional causality between EXRR and OPR in the short-run period. Relating this result with prior studies in Nigeria, we found that the result complies with the result of Salisu and Mobolaji (2013) and Adebayo (2020) that there exists a bi-causal relationship between the variables in Nigeria.

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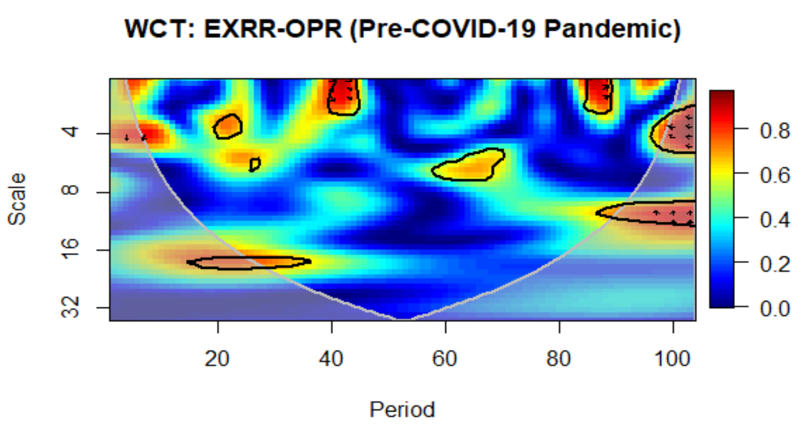
Figure 2: Wavelet Coherence Transform (WCT) of exchange rate return (EXRR) and oil price return (OPR) for the pre-COVID-19 pandemic period in Nigeria.



0-20	10/3/2019-10/31/2019
20-40	11/01/2019-11/28/2019
40-60	11/29/2019-12/30/2019
60-80	12/31/2019-01/28/2020
80-100	01/29/2020-02/26/2020

Note: *The deep black contour represents the significant level at 5% over the red noise for areas covered by the cone of influence (COI). The dark red portion represents regions with significant interrelation while areas covered by the deep blue colour signify low dependence between the series. However, the cold regions beyond the significant areas represent time and frequencies bands with no dependence. Arrows pointing to the right (either up or down) signal in-phase effects while those arrows pointing to the left (either up or down) features out-phase effects for both series.*

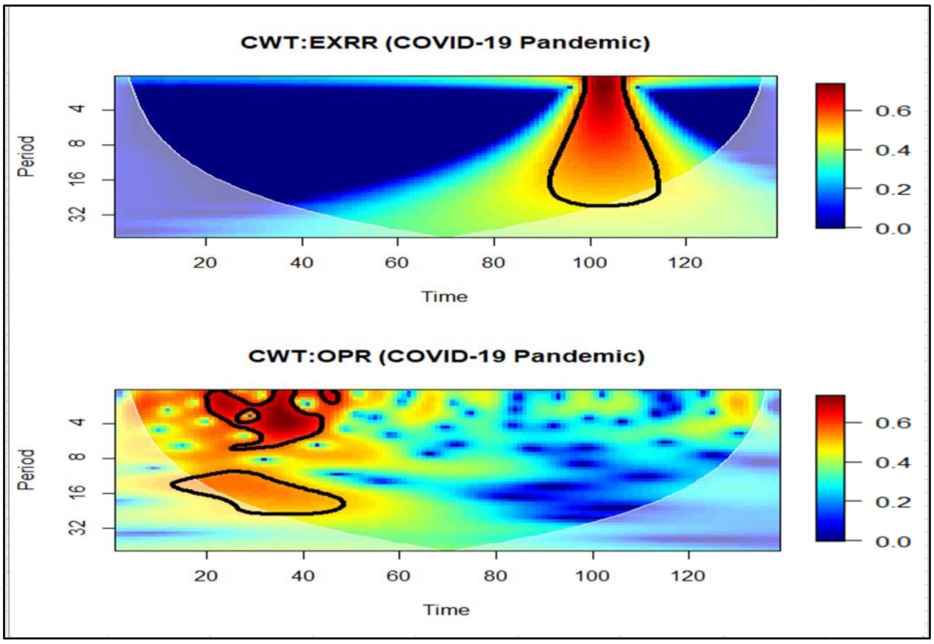
Continuous Wavelet Transform (CWT) and Wavelet Coherence Transform (WCT) for COVID-19 Pandemic Sample

In this section, we examine the relationship between exchange rate and oil price using the COVID-19 pandemic sample to compare the interdependence between the variables for the two subsamples considered in this study. The continuous wavelet transform (CWT) and wavelet coherence transform (WCT) of the return series of exchange rate (EXRR) and oil price (OPR) for the COVID-19 pandemic period are presented in figure 3 and 4, respectively.

For the CWT and WCT analyses, the X-axis represents the period and it ranges from 0-20 (02/27/2020-03/26/2020); 20-40 (03/27/2020-04/23/2020); 40-60 (04/24/2020-05/21/2020); 60-80 (05/22/2020-06/18/2020); 80-100 (06/19/2020-07/16/2020); 100-120 (07/17/2020-08/13/2020) to 120-139 (08/14/2020-09/09/2020). The frequency periods of the series reflect on the Y-axis of each diagram where 0-4 represent short-run periods, 4-8 connote medium run periods while 8-16 is for the long run periods and 16-32 stands for the very long run periods for COVID-19 pandemic sample.

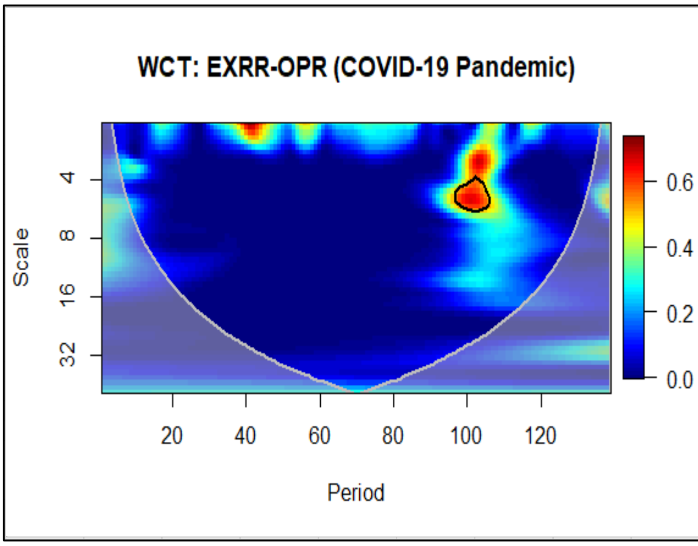
Reporting the CWT for the COVID-19 pandemic, the exchange rate return (EXRR) is presented in the upper part of Figure 3 while the lower part contains the CWT for oil price return (OPR). For EXRR, it witnessed stable variation from 02/27/2020 to 07/02/2020 in the short run, medium run and long-run periods. However, there is considerable evidence of strong variation for these frequency scales from 07/02/2020 to 08/13/2020 and thereafter EXRR becomes stable again. For OPR during the COVID-19 pandemic, it features strong variance within the period of 03/27/2020-04/23/2020 for short-run and medium run periods. In addition, there is presence of stability for all other regions in the cone of influence.

Figure 3: Continuous wavelet power spectra transform (CWT) of exchange rate return (EXRR) and oil price return (OPR) for COVID-19 pandemic period in Nigeria.



Note: *The CWT for EXRR(OPR) is on the upper(lower) part of the figure as shown above. The thick black contour represents the significant level are 5% for the region in the cone of influence (COI). The code of the colour for the power varies from blue (low power) to red (high power).*

Figure 4: Wavelet Coherence Transform (WCT) of exchange rate return (EXRR) and oil price return (OPR) for COVID-19 pandemic period in Nigeria



0-20	02/27/2020-03/26/2020
20-40	03/27/2020-04/23/2020
40-60	04/24/2020-05/21/2020
60-80	05/22/2020-06/18/2020
80-100	06/19/2020-07/16/2020
100-120	07/17/2020-08/13/2020
120-139	08/14/2020-09/09/2020

Note: *The deep black contour represents the significant level at 5% over the red noise for areas covered by the cone of influence (COI). The dark red portion represents regions with significant interrelation while areas covered by the deep blue colour signify low dependence between the series. However, the cold regions beyond the significant areas represent time and frequencies bands with no dependence. Arrows pointing to the right (either up or down) signal in-phase effects while those arrows pointing to the left (either up or down) features out-phase effects for both series.*

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With evidence of variation and stability for the EXRR and OPR using the CWT analysis, we proceed further to explore the interdependence relation between EXRR and OPR with the aid of the WCT spectrum. The WCT for the COVID-19 pandemic sample in figure 4 suggests evidence of a low dependence relationship between EXRR and OPR for the short run, medium run, long run and the very long run periods between 02/27/2020-06/18/2020. However, the figure shows strong interdependence between the series in the medium run period around 07/01/2020 to 07/16/2020. Furthermore, the WCT analysis did not reveal evidence of lead-lag effects within or outside the zone of influence. This contrast prior evidence by Reboredo and Rivera-Castro (2013) that there is evidence of profound lead-lag effects between exchange rate and oil price during the global financial crisis compared to the pre-global financial crisis.

CONCLUSION AND RECOMMENDATIONS

The outbreak of the COVID-19 pandemic has increased the literature of global economic crises because researchers were more concerned about its effects on the affected markets especially energy and the foreign exchange markets. This study gathers high-frequency daily time series data of Nigeria's exchange rate vis-à-vis US dollar and Bonny light oil price as a proxy for domestic oil price for a full sample spanning from October 3, 2019, to September 9, 2020, and it is later partitioned into the pre-COVID-19 pandemic sample (October 3, 2019, to February 26, 2020) and COVID-19 pandemic sample (February 27, 2020, to September 9, 2020). The study employed the continuous wavelet transform (CWT) to determine the stability and variation of the series over different time and frequency bands. It is conclusive to say that the oil price-exchange rate nexus features mixed variation in a different time and frequency bands either at the pre or post-COVID 19 pandemic period. Turning to the wavelet coherence transform (WCT) analysis in the pre-COVID-19 pandemic period, there is evidence of bidirectional causality between exchange rate and Bonny light oil price whereas the post-COVID-19 pandemic period display absence of causality between the variables.

The empirical findings of this paper are important for immediate policies revisiting by monetary authorities and policymakers in Nigeria in the aspect of exchange rate management and crude oil dependence. Over the years, oil price shocks have been observed as a significant factor that contributes to fluctuations in exchange rate, economic activities and the total revenue of oil-exporting countries due to overdependence on crude oil, therefore, policymakers should promote effective economic diversification that would promote several aspects of the economy as a means to reduce the dependence on oil exports and oil-related assets. On the path of monetary authorities, there should be appropriate policies to drive down oil price inflationary pressures to curb exchange rate depreciation that is often caused by oil price shocks. The monetary authorities should also intensify exchange rate regime management and adoption of less procyclical macroeconomic policies against crisis periods to maintain a fair swing in external financial activities as well as trade fluctuations on oil-related products.

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EFFECT OF CAREER CHOICE ON PERFORMANCE IN POLYTECHNICS IN KWARA STATE, NIGERIA

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ABSTRACT

*The choice of a career is not the same as performing well in a workplace. Because of a lack of correct guidance, people have made poor career choices, so a bad decision can change the fate of the person. The study, therefore, explored the impact of career choice on the Kwara State Polytechnics' performance. The study was designed through a cross-sectional survey. There were 2349 employees of 3 polytechnics in the State of Kwara in the study. The study employs non-probably convenient sampling techniques using the Taro-Yamane formula to determine the sample size with an error-tolerant of 5% and has selected for analysis a sample of 409 respondents. The data were processed by using the PLS-SEM path model. Parental guidance (PG), personal interest (PI), career growth (CG), and job satisfaction are the variables of interest in the study (JS). Results show that the P-value (PG) of 0.000 (5%) is significant in the employee performance and the null hypothesis Ho1 is rejected. The positive and significant effect of the P-value of 0.003** (5%), on the performance of the employee, also rejects the null hypothesis (H_{01}). This means that career choices (parental guidance and personal interest) in Kwara State Polytechnics have a significant effect on performance but that personal interest is dominantly influenced by results in performance. The study, therefore, shows that parental guidance and personal interests are necessary for a person to achieve success in any facility in which he or she chooses to work.*

Keywords: Career choice, job satisfaction, parental guidance and personal interest.

SECTION A

1. INTRODUCTION

Individuals and corporations aspire to achieve their desires, over their lifetime, the achievement, therefore, to individuals to be in terms of choosing a career and to cooperate bodies to be in terms of performing in their choosing career, especially what the individual does when going to school and therefore strive to be identified with one class of work called career, it is because their future profession is central to their career choice. Aside from the influence of peer groups, career choice depends on the individual's interest, parental guidance, educational achievement, environmental factors, and the influence of these variables as a predictor and determinant of the income level of individuals, nature of work, and thus marks the personalities of the individual. Therefore, if someone is aware and can use the skills for the desired career, we can say that they have taken a good job. It's one thing for someone to have a career and it's another thing for such person to perform in his chosen company where he/she works.

Having a career choice is not the same as performing well in an establishment where employees work, that is why Nur'ain & Nur' (2019), examined career choice as an important element in every individual's life but making the wrong choice can lead to life-long consequences. Persons who have decided incorrectly will be unhappy and not satisfied with their employment. The performance of employees at a higher institution, like polytechnic, can only be linked to career choices if there are factors such as financial recompense (salaries), favourable working conditions, employee safety, and other motivations that can encourage and stimulate people to put their best into such a job. Making career choices can seem straightforward on the surface, but a closer look shows that it is one of the hardest choices in life. People do not have a good career option despite their education. (i) employees are not having a clear career path, this could be as a result of economic hardship, it could be as a result of lack of proper mentorship at the time of choosing the career, (ii) employees could not have financial fulfilment, mostly employees made a decision on a particular career, because of financial independence, but if after having a career and still depending on someone, it means you are not accomplished. Fareo and Garkuwa (2018) confirmed students are in a dilemma of making career decisions in Nigeria, as they finish their junior secondary school. The following factors came into play: parental influence, peer group, economic status, societal need, and personal interest; these variables influenced, their decision. This means that, if a person makes a bad choice, his performance in the selected field will be impacted.

Employee performance is thought to be related to ability, personality, and interest, and the employee, as an important key element of the organization, determines the achievement of organizational goals through their performance. Today's employees are more career conscious than ever before, and they expect more from their work in terms of fulfilment, personal growth, and satisfaction. This expresses a strong willingness to pursue more than just a job; employees seek jobs that promise to expand their interests, personality, and skills. As such, during the study, two research questions were asked: how does parental guidance affect the performance of polytechnics, in Kwara State and how does personal interest influence performance? In addition to the broad purpose of the study, the relationship between career choice and performance in an institution such as polytechnics is specifically focused.

- Investigate the extent to which parental guidance affects performance.
- Assess the effect of personal interest on performance.

These hypotheses were formulated to achieve the objective of the research:

H_{01}: Parental guidance has no significant effect on performance in Polytechnics in Kwara State.

H_{02}: Personal interest has no significant on performance in Polytechnics in Kwara State.

SECTION B

2.0 LITERATURE REVIEW

2.1 Conceptual Review

The term "career" comes from the languages of French and Latin. It is defined as a business, professional or commercial activity that a person may engage in during his or her studies or until he or she dies. A career is also defined as a sequence of roles a person plays throughout his life and is the drive of an individual through education, work, and other aspects of life (Shazia, Muhammed & Syed, 2019). Mercy (2017) also defined career choice as a process that describes the choices that a person makes when selecting a wide range of jobs.

2.2 Determinant of Career choice

A career decision is one of the most important problems and challenges in the life of an individual. All the factors involved in making a career decision are personal interest, parental influence, peer group, earnings, financial status, and a societal necessity.

Interests

This refers to the enthusiasm of the student for his selected profession (Asad & Shoaib, 2018). People prefer, enter, stay in, and most successful in jobs that match their interests and skills. Career interests reflect stable preferences for certain workplaces. Three brothers are Ahmed, Sharif, and Ahmad (2017) Argue that middle school interests are formed and become more stable during the life of a person. Following Holland's Career Typology theory, people choose a career environment that best suits their personality and interests (Holland, 1966). Parental influences, school, friends, and life experiences help develop personal interests. In motivating people to do what they like, interest is extremely important. A very strong and motivating interest in anything will boost to do it wholeheartedly.

Parental Influence

The involvement of parents can be demonstrated through advice and information on jobs and careers that their children can carry out. The results of various studies showed that parent norms, beliefs, information on modern professions, and local and international labour markets are at the forefront. In Device's words (2019), Parents influence the career choices of their children the most, but both positive and adverse consequences can be affected. Parents play a significant role here because they influence the career choices of their children in a variety of ways, including direct legacy and apprenticeship condition or role model (Asad & Shoaib, 2018). Parental guidance is extremely important and influential in the lives of children, especially when two major life events are involved: marriage and choice of career (Shazia, Muhammad & Syed, 2019). Parent wants their children to have a secure job and gain a decent compensation and consistent employment.

Performance

The extent to which employees carry out their assigned responsibilities and work tasks are referred to as performance (Kenny, 2019). Mensah (2018) defined performance as the ability to accomplish one's goals. The ability to complete a task is referred to as performance (Ezeanyim, Ekene & Ufoaroh, 2019). There is no doubt that employees are the foundation of any organization. Mohand (2020) investigated how an individual's or an organization's performance is strongly influenced by all organizational activities, policies, practices, knowledge management practices, and employee engagement. These factors are critical in fostering high levels of employee performance. Employee performance is affected by a variety of factors, the most important of which is training, which improves employees' capabilities. Mustafa and Mulolli (2018) recognize performance management as a planned process that incorporates key elements such as agreement, measurement, support, feedback, and positive improvements that shape performance expectations outcomes. Ismail, Iqbal & Nasr (2019) also stated that organizations, through creative environments and opportunities to think and act differently, could outperform their competitors.

Job Satisfaction

Organizations are concerned about the relationship between employees and the level of satisfaction to improve productivity and achieve overall organizational objectives (Muna, Zain & Shaju, 2017). Job satisfaction is defined as a positive emotion resulting from an evaluation of one's job experience (Mata, 2004). (2021). Many factors affect job satisfaction, including work nature, salary, progress, workgroups, cement, workgroups, and working conditions (Muna et al., 2017). A working environment that encourages emerging creativity and innovation benefits employees through better job satisfaction, ionization, commitment to employees, and employment efficiency. Alzghoul, Elrehail, Emeagwali, and AlShboul (2018). The report. If employees are not satisfied with the nature of their job, they may be deliberately reduced and their unhappiness with the nature of their job may also jeopardize the organization's performance as a whole, as employees are the engine space of an organization. (Ezeanyim and his fellow Members, 2019) Employment satisfaction is a complex grouping of cognition, emotion, and trends. There is no certain way to measure job satisfaction, but there are several ways to determine whether an employee is satisfied or unhappy with the job. An unsatisfied worker has low moral standards for the job and if the moral standards of the employees towards the job are low, their performance may suffer from a lack of motivation for performance.

Career Growth

Career progress is the process of moving from one corporate stage to another. Apprenticeships are a frequent way to advance a person's career. Career growth is defined as a perception of an opportunity to promote and develop within an organization according to Daud (2014) (cited in Ikechukwu & Paschal, 2017). Spector (2003) describes career growth as a further advance in employees who strive to learn new qualifications and improve their performance. The company is also known as a career ladder.

2.3 Theoretical Review

Trait-Factor Theory

The theory of trait factor proposed by Frank Parsons (1909) explains the fact that an individual must study his or her inherent traits, such as abilities, attitudes, abilities, interests, values, and personality, to succeed in his or her career as a candidate. This is assessed by examining the occupation concerning its opportunities, future progress and development requirements, and so on. According to the theory, a person's match with the specific needs of a job creates an environment in which their needs are satisfied and their work performance is satisfactory. According to Pearson, an ideal career choice is based on matching personal characteristics with job factors, such as financial rewards and a working environment. Pearson claimed that the degree of fit between the person and the job is visible if a person's profile matches a profile, and then a career choice is made.

Holland Theory of Vocational Decision

The theory was suggested by john Hollands (1966), a scholarly psychologist. Holland described 6 fascinating areas where all careers can be categorized; RIASEC is the acronym for the six areas of interest that are realistic, artistic, social, entrepreneurial, and classical in Holland. He claimed that these areas can be used to describe a person's personality and interests and that interaction between people and their environment determines a personal job behaviour (performance). Holland continued: "In choosing a career, people prefer jobs where they are surrounded by people similar to their skills, and attitudes and values and play a fun role." Holland said the same way. Holland was also in favour of choosing a program of education that fits its personality well. The six areas of interest proposed by Holland are also described as a wide range of similar work tasks and activities; the interests include a description of people, value, motivation, and preferences; a compilation of typical job tasks and descriptions of the type of individual that would be interested in carrying out these kinds of tasks are also provided for each area of interest.

2.4 Review of Empirical Studies

Mohand (2020) conducted a literature review to investigate the determinants of employee performance. This was accomplished by examining literature in ISI (Web of Knowledge) from 2015 to 2019. The study describes each factor that affects employee performance. Knowledge management, information and communication technology, employee empowerment, innovation and creativity, and organizational culture all have a significant impact on employee performance, according to the findings. On the other hand, the correlation between these factors has a vital role in maintaining employee's performance and attitude.

Shazia, Muhammad, and Syed (2019) studied the parental influence on the career choice of their children: a literature review. The used narrative literature review in which iterative approach was used to detect pertinent literature, concentrated on literature published between the years 1990 and 2018. Almost 100 papers were initially assessed and 47 eventually included in the review, it was found that career development is a lifelong process dependent on many factors including, basic personality type and self-concept, family influence, social interactions, and academic excellence. It was also found that parental perceptions play a dynamic role in children's education concerning academic performance, vocation choice and eventually influence the behaviour of their children towards career choice. It is concluded that parents have a strong influence over the career choices that their children make. This influence may be positive or negative depending upon the moral values, educational level, and financial status of the parents.

Ezeanyim, Ufoaroh, and Ajakpo (2019) assess the impact of job satisfaction on employee performance in selected public enterprises in Awka, Anambra State; data was collected from primary sources. 286 copies of the questionnaire were administered to the respondents and 250 copies of the questionnaire were returned successfully which was used as the basis for the research analysis. Ordinary Chi-square was the statistical tool used in analysing the data. The research findings revealed that there is a linear relationship between job satisfaction (Job reward/Pay, Promotion, job safety/ security, and working condition) and employee's performance proxy which is employee's morale. It was concluded on the note that employees are dissatisfied with the working conditions of the organization; it is evident in their responses. It was recommended that the management of the company should provide good working conditions for its employees, to boost their morale.

Humayon, Raza, Khan, and Ansari (2018) examined the effect of family influence, personal interest, and economic considerations in career choice amongst undergraduate students. The study used a quantitative research design. The target population was undergraduate students of higher educational institutions in Vehari, Pakistan. Cross-sectional data were used in this study. For data collection, a simple random sampling technique was used. The data was collected through a structured questionnaire. The descriptive, demographic, reliability, correlation, and multiple regression analyses were applied to find the answer to research questions. The results of regression analysis showed that the family influence, personal interest, and economic considerations exercised a big influence on the career choice of students. The limitations of the study, suggestions for the future study, theoretical and practical implications were also discussed in this study.

Andre and Lucio (2018) studied enhancing employees' performance through organizational care policies in the health care context. The study developed a theoretical model on how organizational care may help employees in expressing their work potential and enhancing their performance. The model is developed within the health care context since its particular setting strongly affects employees' well-being. The finding revealed Organizational care policies have a key role in improving employees' performance through the promotion of policies devoted to enhancing employee well-being through an improved work setting.

Al-Abri and Kooli (2018) investigated factors that mostly affect graduates' decisions regarding their career path and the potential relationship among these factors. The study used a quantitative analysis through primary and secondary data. The sample size surveyed 80 Omani students. The data analysis showed that financial benefits and interest regarding the job have a

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very significant influence on career decisions among Omani students. Contrarily, regarding job security and job opportunity, Pearson correlation coefficient and regression analysis showed that there is a weak association and there is no statistical significance between these two factors and career path. It was recommended that Government must pay attention to the aspirations and motivators of Young Omanis in terms of employment. Government must also encourage the creation of employment opportunities that support Omani talents through providing valuable work experience, opportunities for knowledge development and transfer, and incorporating motivating factors other than financial benefits.

SECTION C

3. Methodology

This study utilized a cross-sectional survey research design as data was collected at a point in time. Non-probability convenience sampling was used by the researchers to collect needed information from respondents. The population of this study is 2,349 which constitute the entire academic and non-academic staff of the selected institutions. Researchers obtain data from three prominent Polytechnics in Kwara State which cut across the strata (Federal, State, and Private Polytechnics). Theses Polytechnics are; Kwara State Polytechnic Ilorin, Federal Polytechnic Offa, and Lens Polytechnic Offa. The breakdown of the population of these institutions is as follows:

Table 1: Population of the Study

INSTITUTIONS	ACADEMIC STAFF	NON ACADEMIC STAFF	TOTAL
KWARA POLY	707	317	1,024
FEDPOFFA	616	615	1,231
LENS POLY	68	26	94
TOTAL	1,391	958	2,349

Source: Authors' Compilation (2020)

Yamane formula was used to arrive at a sample size of 341. However, Israel (2013) advised that 10% -30% should be added to the minimum sample size for attrition. 20% was added to the 341 to make it 409. Parental guidance and personal interest were considered as a proxy of a career choice as an integrated approach to employees' performance. Questions were adapted from the works of Fareo and Garkuwa (2018); Kazi and Akhlaq (2017). The questionnaire was designed on a five-point Likert scale, ranging from strongly disagree (SD) to strongly agree (SA). The use of the Likert scale was necessary because it is an interval scale that enables a researcher to analyse questionnaire responses using parametric tools. Structural Equation Model (SEM) was used through SmartPLS2 software as a tool of analysis.

SECTION D

4.1 Result and Discussion

Response Rate

Table 2: Summary of Response Rate

Detail	Copies	Rate (%)
Questionnaire distributed	409	100
Questionnaire returned	381	93.15
Questionnaire not returned	28	6.85

Source: Field Survey, 2020

Table 2 shows the summary of the number of questionnaires distributed and the number of questionnaires returned. A total number of 409 questionnaires have been distributed to respondents, while 381 representing 93.15% response rate questionnaires were returned. These were found to be valid and useful for the analysis. Therefore, the response rate did not fall below the minimum sample size of 341. Thus, a response rate of above 93.15% is suitable for further analysis (Tabachnick & Fidell, 2013).

4.2 Assessing Model Fit

A structural equation model was used to examine the reliability and validity of the instruments. Figure 1 Presents the examined measurement of the model of the study.

Figure 1: Measurement Model

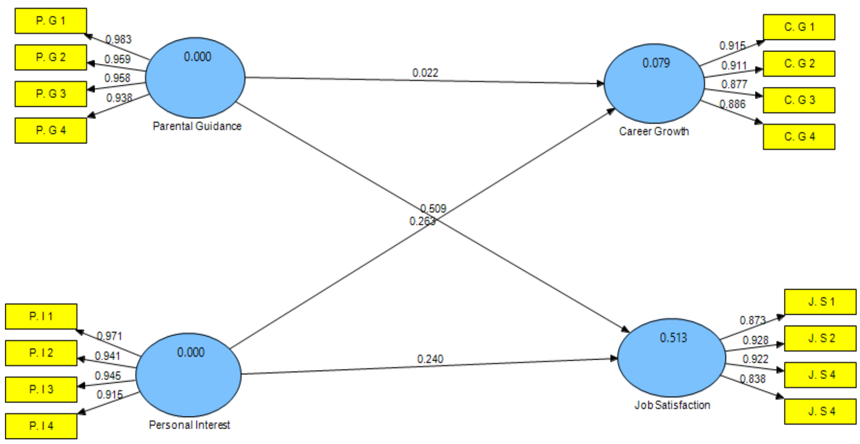

Table 3: Overview of the Model

	AVE	Composite Reliability	R Square	Cronbach's Alpha
Parental Guardian	0.736287	0.892987		0.820988
Performance	0.648863	0.901809	0.886402	0.863571
Personal Interest	0.758423	903969		0.840396

Source: Authors' Computation (2020)

The above present the examined measurement model of the study. In Table 3 and Figure 1, all constructs met the minimum benchmark for both composite reliability and AVE which is 0.7 and 0.5 respectively. On the other hand, all items loading in the model were retained as they all loaded above 0.7. According to Hair et al. (2014), loadings should not be below 0.7 while Average Variance Extracted (AVE) should not below 0.5.

4.3 Test of Hypotheses

Table 4 presents the path coefficient which indicates the Beta Value, Standard Error, Adjusted R Square, and Decision Rule of hypotheses tested in the study.

Table 4: Path Coefficient

Hypotheses (R20.886)	B Value	Standard Error	T Statistic	P-Value	Decision
Parental Guidance -> Performance	0.259389	0.116409	2.228264	0.000***	Rejected
Personal Interest -> Performance	0.734175	0.144748	5.072099	0.003**	Rejected

Source: Authors' Computation (2020)

4.4 Discussion of Findings

Parental guidance was found to be significantly affecting performance. Parents play a significant role as they influenced the career decision of their children, such as direct inheritance and the condition of apprenticeship or role model which makes their children have a strong affection for such profession and that is why parents do their best to find a proper career for their children in other to be satisfied with such career. The finding is in line with studies by Fareo and Garkuwa (2018); which concluded that parental influence has a significant relationship with employees' performance.

Finally, the result revealed that personal interest has a significant effect on performance. This shows that interest in a particular career is the most dominant factor influencing employees' performance. A mismatch of the personality and lack of interest in a particular career is dangerous and could end up in disastrous job performance in terms of dissatisfaction and lack of productivity. This result is similar to the studies of Nur'ain (2019) and Asad (2018) that found personal interest as one of the most important factors that influence job opportunities and employees' performance.

4.5 Conclusion

Understanding the performance has been perceived differently as people give different reasons for performance in the organization but what is certain is that performance has been closely linking with career choice. Large proportions of people make wrong career choices which hurt their performance. The study investigated the effect of career choice on employees' performance in Polytechnics in Kwara State. The study, therefore, concluded that all variables of career choice (parental guidance and personal interest) have a significant effect on employees' performance in Polytechnics in Kwara State. These results were supported by previous related studies. Thus, career choice is concluded to be the major player in determining employees' performance in Polytechnics in Kwara State.

4.6 Recommendations

Based on the findings of this study, the following recommendations are hereby suggested. As personal interest has a major significant effect on employees' performance based on the findings of the study, people offering career advice should provide precise information that can lead an individual to correct career choices.

Parents as Career advisors to their wards can inspire the development of successful careers by supporting them after they decide career was made and limit the degree of control over their children concerning the choice of career.

It is also important for a parent to consider the interest, ability, skill, and personality of their wards while advising them on their career choice preferences because their future performance and success are directly impacted by these factors because mismatch of career choice with personality could be disastrous.

4.7 Contribution to Knowledge

The major contribution of this study is the combination of two independent variables (parental guidance and personal interest) as a dimension to measure career choice about performance which was measured by job satisfaction and career growth previous studies failed to use this proxy as an integral variable in measuring performance. Not only that, there is a dearth of literature on career choice about performance. In addition, only a few studies have taken into consideration, Polytechnics in Kwara State as a domain on this phenomenon for their studies. Lastly, previous related studies mostly used regression analysis for data analysis. This study utilized Structural Equation Model to analyse data, Researcher also noticed that most of the reviewed studies failed to report the effect size of the variables used while this study was able to identify the effect size of all variables considered for the study.

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THE IMPACT OF INFLATION GROWTH ON MANUFACTURING SECTOR PERFORMANCE IN NIGERIA

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ABSTRACT

This paper examined broadly the impact of inflation growth on the manufacturing sector's performance in Nigeria. Specifically, the paper set out to ascertain the impact of inflation on growth in the manufacturing sector of Nigeria and also to determine whether inflation growth Granger caused manufacturing performance in Nigeria. The paper adapted the model used by Ehinomen and Oladipo (2012) using Vector Error Correction Method (VECM) and multivariate Granger causality estimation techniques to estimate the variables. The result of VECM shows that inflation has a significant negative effect on manufacturing sector performance both in the first and second periods as revealed by the coefficient and probability which is less than 5%. Also, exchange rate had a significant negative effect on the manufacturing sector performance in the first period but an insignificant negative effect in the second period. Equally the result of the Granger causality revealed that both exchange rate and inflation rate unidirectionally Granger caused GDP. The study, therefore, recommends that CBN and the ministry of finance should fine-tune the monetary policies to reduced inflationary pressure to the barest minimum in the Nigerian economy.

Keywords: Inflation, Manufacturing sector, Nigeria.

1.0 INTRODUCTION

The manufacturing sector has been given a wide range of importance in economic literature as a Launchpad for economic growth. The sector plays important role in the creation of utility for households through the production of a variety of consumer goods. Also, through exports, the manufacturing sector helps to earn foreign income to a domestic economy. The improved productive activities in the manufacturing sector open doors for more employment opportunities with the resultant capacity to foster improved welfare through increase income earnings. This will invariably reduce the poverty rate and make funds available to afford quality healthcare services. A growing manufacturing sector will provide the domestic government with revenues from corporate tax and create a buoyant economy where the government is financially empowered to finance its budget. Past literature emphasises that the manufacturing sector provides an impetus for economic growth (Iwuagwu, 2011; Omotola, 2016).

Every country of the globe strives to ensure its manufacturing sector operates at optimal capacity, to realize the potential gains from the sector. As such, the Nigerian government has provided several policies to aid the effective functioning of the sector. This includes the creation of four industrial policies to help create a conducive environment for domestic productivity in the sector. Many of the policies designed and implemented to promote the manufacturing sector in Nigeria are; Import Substitution Industrial Policy (1960-1985) geared towards encouraging the establishment of local industry to produce a substitute for imported items; Export Promotion Policy (1986-1998) which encourages local productive activities solely for export; Foreign Investment-led Industrial Policy (1999-2013) which encourages foreign direct investment drive to Nigeria; and Nigerian Industrial Revolution Plan (2014 till date) which was introduced to build up industrial capacity capable of promoting healthy competition.

Despite these policy initiatives, the manufacturing sector has underperformed, as revealed by several macroeconomic indicators. WDI (2019) statistics show that the exchange rate has deteriorated, with drastic depreciation of the Naira. This signals over-dependence on foreign goods, which are not locally produced. Value-added from the manufacturing to GDP performance has never exceeded 21% (WDI, 2019), an indication of poor performance of the manufacturing sector in growing the Nigerian national output. Despite the persistent increase in the output from the sector, unemployment is on the high side of the country. Many factors have been identified to be responsible for the poor performance of the sector;

One factor that could be responsible for the poor performance of the Nigerian manufacturing sector is inflation. This is because inflation affects consumer demand, by making them cut their spending on the number of goods and services. This, in turn, lowers the level of productivity (Omojite; Oriavwote, 2012), because it inhibits a successful budget for production planning. To circumvent losses, manufacturing firms operate an incomplete budget that eventually lowers productivity. Friedman (1997) hinted that increases in inflationary trend further discourages productivity because increases in inflation raise uncertainty; which in turn retards investments for production purposes. Hence, an inverse relationship exists between inflation and manufacturing sector output.

An investigation of the trend of inflation in Nigeria between 2010 to 2020 reveals that Nigeria has been experiencing double digit inflation which is not healthy for growth. Table 1.1 shows trend of inflation in Nigeria

Table 1.1: Inflation Rate in Nigeria (2010 – 2020)

Year	Inflation Rate	Inflation Growth Rate
2010	13.7	9.62
2011	10.8	-21.23
2012	12.2	12.93
2013	8.5	-30.51
2014	8	-5.26
2015	9	11.95
2016	15.7	74.21
2017	16.5	5.14
2018	12.1	-26.71
2019	11.4	5.76
2020	12.9	13.01

Source: Authors Compilation (2021)

There was an alarming increase in inflation in 2016 due to a heavy decline in oil prices internationally. There is therefore the need to study the impact of inflation on manufacturing productivity in Nigeria to proffer a lasting solution to remedy it.

1.1 Statement of the Research Problem

So far, the relationship between inflation and manufacturing sector output is marred in controversies. There are divergent views in the literature in respect of the relationship that exists between inflation and manufacturing sector performance. Hasanov (2010) showed that an inflation rate below the threshold level of 13% promotes output in the Azerbaijani economy;

whereas Phiri (2010) found that inflation only above the 8% threshold impacts negatively on productivity in South Africa. Kareem; Yusuf (2010) also disagree with the negative nexus between inflation and manufacturing sector output by revealing that it is inflation uncertainty that inhibits manufacturing productivity. With this, they identified differences between expected inflation and actual inflation; such that greater variation between expected and actual inflation only demotivates manufacturing productivity. This opinion indirectly dismisses claims that inflation adversely lowers production because of a decrease in aggregate consumption; and thus, suggests that a decrease in consumption may not discourage productivity. Hence, inflation growth may not be a sufficient reason to cut manufacturing productivity; rather, it is its level of uncertainty that influences production within the sector.

Therefore, given the above divergence, it is imperative to conduct a study on the topic to reconcile the difference in literature concerning the impact of inflation on manufacturing sector performance.

1.3 Research Objectives

Broadly, this study investigates the impact of inflation growth on the manufacturing sector performance in Nigeria. This comprises two specific objectives; which are to:

i. Ascertain the impact of inflation growth on the manufacturing sector performance in Nigeria.

ii. Determine whether inflation growth granger causes manufacturing sector performance in Nigeria.

2.0 LITERATURE REVIEW

2.1 Conceptual Review

2.1.1 Concept of Manufacturing Performance

Manufacturing is the production process that involves the use of either handicraft or high tech to convert raw materials to a finished product. It is most commonly related to industrial production; wherein raw materials are transformed into finished or semi-finished goods on a large scale. Though, manufacturing can be done for a subsistence purpose using crude implements. In modern times, manufacturing is carried out on a commercial level. Products manufactured may be sold to other manufacturers as inputs for the completion of their production (Manufacturing & investment around the World, 2002). The root of manufacturing is the industrial revolution which occurred in Europe during the 17th and 18th Centuries. Hence, manufacturing is interchangeably used as industrialization. The industrial revolution marked the watershed that transformed the economies of Central Europe and other developed economies of the world like the United States of America (USA). The revolution marked a new process of manufacturing, from manual production methods to the use of machines, new chemical manufacturing and iron production processes (Manufacturing & investment around the World, 2002).

In economics, manufacturing relates to the creation of utilities. Therefore, manufacturing can be defined from this perspective as the creation of goods and services that guarantee satisfaction. In economics, a manufacturing unit is judged by how efficient it can utilize its resources during production processes. As such, when output equals or is greater than input, the manufacturing unit is said to be efficient. However, where input exceeds output, inefficiency becomes a term for the unit. Also, when output exceeds input, the unit is over efficient. A rational firm seeks that production point where input equals output. Where output exceeds input, the firm is best at increasing output until input and output attain equilibrium. It is pertinent to point out the distinction between efficiency and effectiveness to avoid confusion.

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While effectiveness implies achieving the desired results regardless of the cost, efficiency means attaining results at an optimum cost. Effectiveness can be expressed quantitatively but doesn't usually require more complicated mathematics than addition (Manufacturing & investment around the World, 2002).

Iwuagwu (2011) likened manufacturing to economic development that brings about the employment of citizens. This he submitted occur as the share of manufacturing in GDP increase the more active population will be hired in productive activity. As an avenue capable of promoting an increase in employment, manufacturing helps to guarantee economic empowerment and invariably improvement of welfare. Kirk-Greene; Rimmer (1981) concurs with this position, that manufacturing is done on large scale often make use of machinery and other capitals which enhances labour productivity. It can serve as a tool for poverty eradication. Kofi Anan (2003) (Cited in Iwuagwu, 2011) in his speech on Africa's Industrialization Day, pointed out the relevance of manufacturing as a tool to alleviate poverty. He argued that the rate of transformation of South-East Asian countries like China and India owes to the contribution of industrialization. Murphy (1989) shares the same view as he opined that all countries that witnessed rapid economic growth and good living standard in the last two decades accomplish the feat through manufacturing. Simon-Oke; Awoyemi (2010) share the same view that the essence of manufacturing is to alleviate poverty, human suffering and improve welfare through the application of improved modern technology.

2.1.2 Concept of Inflation

Inflation is defined by Blanchard (2000) as a persistent rise in the general price level of goods and services, over some time. The American Heritage Science Dictionary defines inflation as a progressive increase in the general level of prices, which is necessitated by excess demand, or by autonomous increases in the cost of production. Based on these definitions, inflation involves an increase in the general price level, and it is persistent (Ayyoub, Chaudhry; Farooq, 2011). Inflation is measurable, using any consumer price index (CPI), Producer Price Index (PPI) and Gross Domestic Product (GDP) deflator. Inflation could either be creeping, walking or hyper (Iyoha, Oyefusi & Oriakhi, 2003). Inflation may be demand-pull, cost-push, or structural depending on the factors that precipitate the upward movement of prices (Iyoya, Oyefusi & Oriakhi, 2003).

Contrary to some opinions, inflation could either produce positive or negative effects on an economy (Iyoya, Oyefusi & Oriakhi, 2003). That is, inflation creates two distinct groups of persons – those who are better off, and those who lose. In the event of the rise of general prices of goods and services in an economy, owners of real assets, debtors and those who anticipate a rise in prices benefit from inflation. This is because there would be a rise in their assets or wealth thereby creating additional wealth. More so, an economy that operates less than a full employment capacity benefits from the rise in general prices of commodities as this will stimulate production. Thus, production firms will readily employ productive resources to take advantage of the increase in demand to make a profit. However, in the long run, this will hurt the economy as there will be a loss in confidence in the economy, whereby consumption necessitated by the lower value of the domestic currency will drop – forcing productivity to decline. Hence inflation has a negative effect on the economy as well (Aniekan, 2014). More so, creditors are made worse off as the real value of their money declines. Holders of money assets will be on the losing side with a rising situation of general prices of the commodity in the economy. Hence inflation does not necessarily constitute a challenge to an economy, neither is it always favourable.

2.2 Review of Relevant Theory

An important theory famously used to explain manufacturing sector performance is the Big Push theory by Rosenstein-Rodan (1943). The theory was developed in 1943 to explain what causes industrial and manufacturing growth and development. He tried to explain the grounds to achieve industrial development in less-developed economies. He posits that such economies to reverse their state of backwardness to the path of economic progress needs to invest a big sum of money. Literature, therefore, recommends big investment instead of a small investment in manufacturing for developing countries aspiring to achieve speedy growth (Misra, 2010).

Rosenstein-Rodan (1943) in justifying the need for a big push draws reference to three types of indivisibilities that could lead to external economies. These are indivisibility of production function, the indivisibility of demand and indivisibility of savings. Concerning production function, the model posits that for developing economies to become industrialized, there is a need for massive investments in social overhead capital such as power, transportation and communication (Guillaumont, 2007). However, the theory does not recognize that the growth and development of the manufacturing sector can be caused by inflationary pressure. Bearing in mind that inflation could inhibit productivity via aggregate demand, the Big Push theory can best explain the phenomenon of manufacturing sector performance, by recognizing the role of inflationary pressure.

2.3 Empirical Review

There is a scarcity of empirical studies that specifically investigated inflation growth and the manufacturing sector in Nigeria. Instead, what abounds in empirical literature mostly are studies that engaged inflation as a control variable in determining manufacturing sector performance. Mainly, Okonkwo; Ezeji (2016) explored the impacts of inflation and foreign exchange on manufacturing sector performance (proxied with capacity utilization) in Nigeria. The study adopted the vector autoregressive framework to analyse the model, using data that cover periods of 1981-2013. The results from the study show that in the short-run inflation negatively affects the performance of the manufacturing sector in Nigeria but positively influenced the manufacturing performance in the long run. In a related study, Nnado and Ugwu (2016) carried out an empirical investigation on the relationship between inflation and the performance of the manufacturing sector in Nigeria. The study made use of panel data collected from the Nigerian Stock Exchange, for thirty-eight listed manufacturing firms. The study made use of analysis of variance and regression to analyse the datasets. Results showed that inflation had a negative significant influence on firm value and return on assets of the manufacturing firms investigated.

Loto (2012) carried a holistic empirical study that investigated determinants of manufacturing sector output in Nigeria, over periods of 1980-2010. The study made use of the ordinary least squares (OLS) regression technique. The results from the study found a negative impact of inflation on manufacturing output in Nigeria. Likewise, Sokunle and Harper (2016) examined the determinants of manufacturing sector output in Sub-Saharan African (SSA) countries, using five independent factors: interest rates, FDI, inflation, labour cost, and government incentives. The study engaged a panel regression method and found that none of the factors exerted a significant impact on the performance of the manufacturing sector in the SSA region.

In Ghanaian empirical literature, Mawufemor, Deh and Mohammed (2016) made use of the Vector Error Correction Model(VECM) framework to estimate the impact of inflation on manufacturing sector productivity, between periods of 1968 and 2013. Results obtained confirm that inflation negatively affects the performance of Ghana’s manufacturing performance. Also, Kelani (2014) investigated the impact of trade openness, inflation, and

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foreign direct investment (FDI) on manufacturing exports in Tanzania, over periods of 1980-2012. The study adopted the Vector Error Correction Model(VECM) framework to estimate the data for the study. Results showed that FDI and trade openness impacted positively on manufacturing exports, whereas inflation had a negative impact on exports from the sector.

In another related study in Nigeria, Modebe and Ezeaku (2016 investigated the dynamic of inflation and manufacturing sector performance. The baseline regression result shows that inflation and interest rate have a negative and non-significant effect on manufacturing sector growth while exchange rate positively affects manufacturing sector performance in Nigeria. Amaefule and Maka (2019) appears to agree with the above submission in their investigation of the effect of exchange rate, saving and inflation on manufacturing sector productivity in Nigeria. The result of ARDL shows a negative impact of inflation on manufacturing sector productivity. The study by Egbunike and Maku (2018) noted a significant effect of inflation rate on GDP and return on assets of the manufacturing sector in Nigeria.

3.0 METHODOLOGY

3.1 Model Specification

The model for this study was adapted from the model used by Ehinomen and Oladipo (2012); Omotola (2016), which propose the impact of exchange rate policy, inflation rate, capital formation, bank credit and economic growth on the manufacturing sector in Nigeria. This is mathematically stated as:

$$\text{MAN} = f\,(\text{EXR, INT, GCF, CRE, GDP}) \qquad (1)$$

Transforming the implicit model in equation 1 to the explicit model we generate equation 2:

$$\text{MAN} = \alpha_0 + \alpha_1\,\text{EXR} + \alpha_2\,\text{INF} + \alpha_3\,\text{GCF} + \alpha_4\,\text{CRE} + \alpha_5\,\text{GCF} + \mu \qquad (2)$$

Where: MAN = manufacturing sector (proxied with growth in manufacturing sector output); EXR: Exchange rate policy (proxies by nominal exchange rate); INF: Inflation rate (measured using consumer price index); GCF: Gross Capital Formation (a proxy for private sector investment); CRE: Bank Credit to the Manufacturing Sector; GDP: Gross Domestic Product growth rate; α_0: Intercept; α_1– $\alpha_{5:}$ are parameter estimates; μ: The stochastic error term

A-Priori Expectation: The a-priori expectation for model (2) is given as $\alpha_{1,}\,\alpha_{2,}\,\alpha_5<0$; and α_3, $\alpha_4>0$.

The regression model was analysed using the Vector-Autoregressive (VAR) model by Sims (1989) to mitigate the problems of endogeneity. Unit root test is conducted, to ensure that the regression estimates are not biased. Where there is a unit root, differencing of the datasets will be conducted. This would lead to a co-integration method, using the Johansen co-integration statistic, and eventually the vector error correction methodology (VECM).

3.2 Granger Causality Model

To analyse the second research objective, the VAR Granger causality framework is adopted. The granger causality models for this study are:

$$\text{MAN} = \delta_0+\sum_{p=1}^{k}\delta_1\text{EXR}_{t-j} + \sum_{p=1}^{k}\delta_2\text{INF}_{t-j} + \sum_{p=1}^{k}\delta_3\,\text{GCF}_{t-j} + \sum_{p=1}^{k}\delta_4\,\text{CRE}_{t-j} + \sum_{p=1}^{k}\delta_5\text{MAN}_{t-j} + \sum_{p=1}^{k}\delta_6\text{GDP}_{t-j} + \mu_1 \qquad (3)$$

$$\text{EXR} = \pi_0+\sum_{p=1}^{k}\pi_1\text{INF}_{t-j}+ \sum_{p=1}^{k}\pi_2\text{GCF}_{t-j} + \sum_{p=1}^{k}\pi_3\,\text{CRE}_{t-j} + \sum_{p=1}^{k}\pi_4\,\text{MAN}_{t-j} + \sum_{p=1}^{k}\pi_5\,\text{EXR}_{t-j} + \sum_{p=1}^{k}\pi_{56}\text{GDP}_{t-j} + \mu_2 \qquad (4)$$

$$\text{INF} = \Omega_0 +\sum_{p=1}^{k}\Omega_1\text{GCF}_{t-j}+ \sum_{p=1}^{k}\Omega_2\text{CRE}_{2_{t-j}} + \sum_{p=1}^{k}\Omega_3\,\text{MAN}_{\,t-j} + \sum_{p=1}^{k}\Omega_4\text{EXR}_{\,t-j} + \sum_{p=1}^{k}\Omega_5\text{INF}_{\,t-j} + \sum_{p=1}^{k}\Omega_6\text{GDP}_{\,t-j} + \mu_3 \qquad (5)$$

GCF = $\gamma_0+\sum_{p=1}^{k}\gamma_1\text{CRE}_{t-j}+\sum_{p=1}^{k}\gamma_2\text{MAN}_{t-j}+\sum_{p=1}^{k}\gamma_3\text{EXR}_{t-j}+\sum_{p=1}^{k}\gamma_4\text{INF}_{t-j}+\sum_{p=1}^{k}\gamma_5\text{GCF}_{t-j}+\sum_{p=1}^{k}\gamma_6\text{GDP}_{t-j}+\mu$ (6)

CRE = $\emptyset_0+\sum_{p=1}^{k}\emptyset_1\text{MAN}_{t-j}+\sum_{p=1}^{k}\emptyset_2\text{EXR}_{t-j}+\sum_{p=1}^{k}\emptyset_3\text{INF}_{t-j}+\sum_{p=1}^{k}\emptyset_4\text{GCF}_{t-j}+\sum_{p=1}^{k}\emptyset_5\text{CRE}_{t-j}+\sum_{p=1}^{k}\emptyset_6\text{GDP}_{t-j}+\mu_5$ (7)

GDP = $\beta_0+\sum_{p=1}^{k}\beta_1\text{MAN}_{t-j}+\sum_{p=1}^{k}\beta_2\text{EXR}_{t-j}+\sum_{p=1}^{k}\beta_3\text{INF}_{t-j}+\sum_{p=1}^{k}\beta_4\text{GCF}_{t-j}+\sum_{p=1}^{k}\beta_5\text{CRE}_{t-j}+\sum_{p=1}^{k}\beta_6\text{GDP}_{t-j}+\mu_6$ (8)

Where: δ_0,π_0, Ω_0,γ_0,$\emptyset_0$and $\beta_0$are intercepts; $\delta_1$to δ_6; $\pi_1$to π_6; $\Omega_1$to Ω_6; γ_1 to γ_6, $\emptyset_1$ to $\emptyset_\beta$ an β_1 to β_6 are parameter estimates; μ_1, μ_2,μ_3, μ_4, and μ_6 are independent serially uncorrelated random variables t-j are lag lengths; and k, p are periods.

3.3 Sources of Data

The study made use of secondary data between 1981 and 2018 sourced from Statistical Bulletin published by the Central Bank of Nigeria.

4.0 RESULTS

4.1 Descriptive Analysis

The result of descriptive statistics is presented in Table 4.1

Table 4. 1: Descriptive Statistics

Statistics	MAN	EXR	INF	GCF	CRE	GDP
Mean	0.02	88.54	19.35	5.02	2300.24	3.17
Median	0.03	97.02	12.72	2.25	128.53	4.21
Maximum	0.33	306.08	72.84	24.55	21283.46	15.33
Minimum	-0.80	0.62	5.39	0.09	2.66	-13.13
Std. Dev.	0.18	87.14	17.24	5.98	5442.65	5.54
Skewness	-2.81	0.80	1.74	1.34	2.44	-0.87
Kurtosis	13.51	2.97	4.84	4.34	7.51	4.54
Observations	38	38	38	38	38	38

Source: Author's Computation (2021)

Table 4.1 presents the descriptive statistics for the datasets for this study. The standard deviation values show that the datasets are not symmetric. They are all positively skewed, except for MAN and GDP variables. Kurtosis values reveal that there are outliers in the datasets, except for the EXR variable. This means that output growth from the manufacturing sector during the years was not steady; as values for inflation, bank credit, gross fixed capital formation, and GDP were at some point volatile during the years.

4.2 Stationarity Test

Table 4.2: ADF Test Results

Variables	95% Critical values	ADF Test Stat	Order of Integration
MAN	-3.536601	-9.563143	I(0)
EXR	-3.540328	-4.543708	I(1)
INF	-3.580623	-4.387062	I(0)
GCF	-2.991878	-3.547203	I(1)
CRE	-3.540328	-9.677298	I(1)
GDP	-3.548490	-3.869682	I(1)

Source: Author's Computation (2021)

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In table 4.2, the ADF test results show that all the datasets are stationary at first difference except INF and MAN which are stationary at levels.

4.3 Johansen Co-Integration Test Results

Table 4.3: Unrestricted Cointegration Rank Test (Trace) Results

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.890064	162.1183	95.75366	0.0000
At most 1 *	0.575919	84.84317	69.81889	0.0020
At most 2 *	0.552720	54.81906	47.85613	0.0097
At most 3 *	0.396178	26.65907	29.79707	0.1102
At most 4	0.225217	9.002405	15.49471	0.3652
At most 5	0.002038	0.071394	3.841466	0.7893

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: Author's Computation (2021)

Table 4.4: Unrestricted Cointegration Rank Test (Maximum Eigenvalue) Results

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.631076	115.2114	95.75366	0.0012
At most 1 *	0.550123	79.31354	69.81889	0.0072
At most 2 *	0.437108	50.55743	47.85613	0.0273
At most 3 *	0.394157	29.86942	29.79707	0.0490
At most 4	0.213522	11.82858	15.49471	0.1653
At most 5	0.084589	3.181738	3.841466	0.0745

Max-eigenvalue test indicates 1 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: Author's Computation (2021)

Tables 4.3 and 4.4 present Johansen co-integration test results, based on trace and max-eigen statistics. Both tables indicate the presence of co-integration equations, which indicates that there is a presence of a long-run relationship among the variables for this study. Given that the variables are co-integrated; the vector error correction methodology will be used to estimate the model for the study.

4.4 Test of Hypotheses

The first hypothesis, which tests for the impact of inflation growth on the manufacturing sector in Nigeria is analysed using regression analysis; whereas the second research hypothesis which ascertains whether inflation growth granger cause manufacturing sector in Nigeria is analysed using granger causality.

4.4.1 Test of Hypothesis One

H_0: Inflation growth does not significantly impact the manufacturing sector in Nigeria.

H_1: Inflation growth significantly impacts the manufacturing sector in Nigeria.

The hypothesis was tested using VECM regression analysis in Table 4.5.

Table 4.5: VECM Regression Results

Variables	Coefficient	Std. Error	t-Statistic	Prob.
Intercept	0.034207	0.014575	2.347026	0.0288*
D(MAN(-1))	-0.584608	0.104686	-5.584371	0.0000*
D(MAN(-2))	-0.463959	0.071352	-6.502388	0.0000*
D(EXR(-1))	-0.001785	0.000678	-2.634201	0.0155*
D(EXR(-2))	0.000285	0.000652	0.436968	0.6666
D(INF(-1))	0.001791	0.000690	2.595593	0.0169*
D(INF(-2))	0.002315	0.000689	3.358981	0.0030*
D(GCF(-1))	-0.004786	0.017314	-0.276402	0.7849
D(GCF(-2))	0.005811	0.018946	0.306708	0.7621
D(CRE(-1))	0.014802	0.003122	4.741047	0.0001*
D(CRE(-2))	0.006029	0.003126	1.928775	0.0674**
D(GDP(-1))	-2.73E-06	3.95E-06	-0.691083	0.4971
D(GDP(-2))	-7.69E-06	4.41E-06	-1.741336	0.0963**
ECM	-0.325819	0.040698	-8.005767	0.0000*
R-squared	0.887994	Mean dependent var		0.012389
Adjusted R-squared	0.818656	S.D. dependent var		0.130528
S.E. of regression	0.055585	Akaike info criterion		-2.652641
Sum squared resid	0.064883	Schwarz criterion		-2.030501
Log-likelihood	60.42121	Hannan-Quinn criterion		-2.437878
LM test for serial correlation	0.0621	Test for Heteroscedasticity		0.1144

Source: Author's Computation (2021)
Hint: (*) (**) indicate significance at 5% and 10% levels respectively

Table 4.5 shows the result of the VECM regression result. Starting from the diagnostic analysis the R- Square of 0.887994 implies that the variation in GDP is jointly explained by the explanatory variables in the model. Also the Adjusted R- Square of 0.818656 shows that the model for the study is well specified. There is an absence of serial correlation and heteroscedasticity, as revealed from the LM and Breusch-Pagan statistics. The results obtained are reliable and non-spurious.

Inflation was revealed to have a significant negative impact on manufacturing sector performance both in the first and second periods as revealed by the coefficient and probability that is less than 5%. MAN also has a significant negative effect on the manufacturing sectors performance. However, the Exchange rate has a significant negative effect on manufacturing sector performance in the first period while in the second period insignificant positive impact of exchange rate on manufacturing sector performance was established. Gross fixed capital formation was observed to have an insignificant negative effect on performance in the first period but an insignificant positive effect on manufacturing performance in the second period. The GDP growth rate has an insignificant negative impact on manufacturing sector performance in Nigeria. The ECM variable is negative, showing there is short-run to long-run equilibrium in the model. With these results, there is evidence that inflation has a significant impact on the performance of the manufacturing sector in Nigeria.

4.4.2 Test of Hypothesis Two

H_0: Inflation growth does not significantly Granger cause manufacturing sector performance in Nigeria.

H_1: Inflation growth significantly Granger causes manufacturing sector performance in Nigeria.

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Table 4.6: Granger Causality Results. Dependent Variable: D(MAN)

Excluded	Chi-sq	df	Prob.
D(EXR)	7.028251	2	0.0298
D(INF)	18.41652	2	0.0001
D(GCF)	0.184366	2	0.9119
D(GDP)	24.71732	2	0.0000
D(CRE)	3.534669	2	0.1708
All	64.48967	10	0.0000

Source: Author's Computation (2021)

In table 4.6, the Granger causality test results reveal that exchange rate, inflation, and GDP growth rate Granger caused manufacturing sector performance in Nigeria. On the other hand, GCF and CRE does not Granger cause manufacturing growth in Nigeria. Collectively the exogenous variables Granger caused the performance of the sector. This indicates that inflation growth Granger causes manufacturing sector performance in Nigeria.

5.0 CONCLUSION & RECOMMENDATIONS

The study finds that inflation plays an important role in the manufacturing sector of Nigeria. However, the impact of inflation on manufacturing sector performance in Nigeria is positive, contrary to the popular assertion in Nigerian literature. In particular, the result of this paper shows that inflation has a significant positive effect on manufacturing sector performance which does not agree with the negative impact found in Nigeria literature (Omojite & Oriavwote, 2012; Okonkwo & Ezeji, 2016; Nnado & Ugwu 2016). The results obtained from this study agree with the result of Hasanov (2010); Phiri (2010) that inflation does not necessarily constitute a challenge to an economy; rather, it becomes a problem only when it is high and unpredictable (Kareem & Yusuf, 2010). Nonetheless, this serves as a wake-up call to the Central Bank of Nigeria and the Ministry of Finance, whose Institutions are charged with the objectives of achieving macroeconomic goals, to finetune policies that minimize inflationary pressure and put inflation at its barest minimum.

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INFLUENCE OF AUDIT COMPETITION ON AUDIT QUALITY OF LISTED DEPOSIT MONEY BANKS IN NIGERIA

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ABSTRACT

A recent occurrence in the field of audit as a result of scandals and loss of integrity by auditing firms has caught the attention of researchers all over the world and in Nigeria specifically. This has indeed resulted in varying degrees of competition that existed among auditing firms (Big4 and non-Big 4). It has also led to a reduction in the quality of financial statements. This study investigated the influence of audit competition on the audit quality of Listed Deposit Money Banks (DMB) using a longitudinal research design. The data for the study were obtained from annual reports of ten (10) listed DMBs in Nigeria that consistently published their annual reports and which constituted the sample for this study out of the twenty (20) currently listed deposit money banks in Nigeria using a judgmental sampling technique. The data obtained were estimated using mean, standard deviation, range, and panel regression techniques. Findings revealed that audit competition has a significant negative influence on audit quality in the Nigerian banking sector. The study, therefore, recommended that small and medium-sized audit firms (non-Big Four) should be encouraged to consider the option of merging to compete effectively with the Big Four audit firms in the market to strengthen competitions that will foster increased audit quality.

Keywords: Audit competition, Audit quality, Big 4, Discretionary accruals

1.0 INTRODUCTION

Law of the Federal Government of Nigeria (LFN, 2004, CAP 20) mandates every quoted company to carry out statutory audits to ensure the integrity of financial reports communicated to various stakeholders in economic measurements. The financial reports/statements are expected to be free from material misstatements to guarantee the confidence and trust of the public in the accounting information. Despite this, Nigeria's significant quantum of well-publicized cases of accounting irregularities has left all accountants, external auditors, investors, and policymakers deeply involved in the state of Nigeria's business and financial realms. In the early 1990s, the impact of financial industry problems on auditors brought them into a clear perspective, causing society to investigate the position of professionals in the field (Bakre, 2007; Ajibolade, 2008).

Several factors go into determining the overall quality of audit, as reflected in previous researches that assessed the influence of these features on audit report quality as defined by (Umar, 2014). Regardless, however, some scholars suggest that in different economic sectors there are several overlapping variables. To start with, some people advocated for monitoring procedures like those proposed by Umar, 2014, and others advocated for audit firm characteristics like those proposed by him (Amahalu, Okeke, & Obi, 2018). A separate argument to note is that, in research by (Amahalu, *et al*, 2018), audit fees, audit tenure, and audit firm size were found to have a substantial connection with audit quality in banks. Based on the results of the analysis (Asiriuwa, Aronmwan, Uwuigbe, & Uwuigbe, 2018), it can be inferred that extent of expertise of each committee member, the occurrence of meetings, and audit committee size maintains a positive association with audit quality.

Despite evidence that suggests there is no connection between audit firms and audit fee charges, (Liu, 2007), larger firms are also found to charge higher audit fees than smaller ones, which indicates that they have more resources, a better reputation, and are capable of offering better service. Larger organizations can also face more serious penalties in the case of lawsuits, given the additional risks associated with the larger firms. Furthermore, findings by (Bala, Amran & Shaari, 2018) have shown that greater audit fees are related to less discretionary accruals and hence suggest a better reporting quality. (Zulkarnain & Shamsher, 2008) concluded that younger firms are more likely to experience higher failure and loss risks during their early years of service, contributing to additional audit work and resulting in a processing fee for auditors to audit young companies. The findings by (Francis, Reichelt & Wang, 2009) used audit evidence from many years to examine how joint audit criteria impacted the financial quality and the benefit accrued to it. The study aims to determine what impact audit competition has on the audit quality of Nigeria's publicly traded deposit money banks.

2.0 LITERATURE REVIEW

2.1 Conceptual Review

Audit Quality (AQ)

Readings in the literature include information about the background of audit quality concerning the activities of (DeAngelo, 1981). To appreciate what Audit quality is, it is necessary to understand what it means to find and truthfully disclose factual mistakes, misrepresentations, or omissions in the client's financial reports. Heras, Canibano, and Moreno (2012) claims that audit quality is closely connected to the likelihood of auditing success, accountability, and encouraging auditors to avoid managerial overreaching. This literature argues that the largest factor impacting audit efficiency and auditor independence is the sum of audit fees (Adeyemi & Olowookere, 2012). Several scholars have sought to describe audit quality for many years, using many approaches for assessing certain aspects having an effect on quality (Hosseinniakani, Inacio & Mota, 2014). (Chersan, 2019) has also argued that audit quality is not strictly determined by regulation, but by other factors. Additionally, audit quality is daunting and expensive to assess by the auditor, as well as by the entity by which the audit is conducted. (Aliyu, Musa & Zachariah, 2015) argue that the best standard of audit quality is the one that is capable of detecting material mistakes and misstatements of financial statements.

A high-quality product has value, and that value should be measured in terms of the benefits derived from goods and services, and how clients rate the quality of the product. A concept of audit quality can be created by taking the primary purpose of the audit and comparing it with the data collected. By balancing the key goal of the audit with the analysis of the data collected, the following can be obtained: The greatest fulfilment of the desire for objectivity and fiscal accountability occurs in financial and accounting audits because their findings are based on absolute rather than subjectivity (Bell, Causholli & Knechel, 2015). Quality can be addressed on multiple levels; thus, there have been numerous studies about it to determine quality.

Measurements of Audit Quality

It is challenging to precisely define and quantify audit quality, and the concern then applies to the assessment as well. A host of diverse aspects must be taken into account when assessing as well as measuring audit quality. Currently, audit quality definition is still being investigated through ongoing studies. These researchers have placed their emphasis on three areas important to their study in the past decade. Audit quality is the degree of trust and the right to identify and record violations in financial statements which comply with auditing standards. (Brown, Gissel & Neely 2016). Despite using various proxies in prior literature, different proxies have been used in the present study to show high-quality audits. An excellent example of this idea is found in the research literature on audit firm size (Becker, DeFond, Jiambalvo & Subramanya, 1998), auditor industry specialization (Krishnan, 2003; Tyokoso & Tsegba, 2015), audit fees, audit tenure, and auditor client importance (Okolie, Izedonmi & Enofe, 2013), audit committee meeting, audit committee financial expertise and audit committee independence (Molik, Mir, Mclver & Bepari, 2013). However, according to a story in The Wall Street Journal, DeAngelo created a two-dimensional concept of AQ that was the basis for designing methods to dealing with the problem of identifying and documenting content misstatements. The assumption behind several other studies is that audit quality is tied to auditor size (i.e., the firm Big8, Big6, Big5, or Big4, compared to others. (Zhou, & Elder, 2001; Krishnan 2003).

Audit Competition

Over the last decade, the audit market has reached its limits in developed economies, bringing the niche for Big 4 accounting firms to tap new sources like start-up audit firms in other economies as well as small to avoid running out of business altogether (Kun, Sewon & Baoping, 2014). For companies to thrive, they must have strong resources to provide them with the opportunity to compete (Ilaboya & Okoye, 2015). The potential of audit enterprises to thrive is based on different reasons, many of which include high use value and high product quality, stable manufacturing conditions due to production based primarily on modern techniques, advanced technologies, and a significant operation that results in low costs and lower prices for goods. As previously mentioned, marketing (marketing practices, among other things) requires a variety of aspects such as the availability of confidence in the market, promotion, customer advice, and advertisement.

According to (Balsam, Krishnan & Yang, 2003), audit firm specialization, with positive associations to audit quality, is attributed to industry concentration and market rivalry. However, according to (Grambling & Khurana, 2010), the influence of concentration and market competition has no discernible effect on audit quality. (Siregar, Amarullah, Wibowu & Anggraita, 2012); discovered a substantial positive association between the length of time a firm has been using extended audit services and audit quality; (Al-Thuneibat, Al Issa & Atta Baker, 2011) found a significant adverse connection between the length of time a firm has been using extended audit tenure and audit quality.

According to (Usman, 2016) audit firms' ability to gain market share can be interpreted as their capacity to influence the market in-store to obtain the same or alternative products offered by the firm. Enterprise has very high competitiveness, and that is what helps it to capture and keep hold of the high consumption market. Not only do direct rivals narrow his vision, but Porter still has a propensity to consider all competing goods as possible competition. In a previous article (Nopmanee & Ling, 2015), the competitive capability of enterprises was described as the skill and capacity that enterprises have to sustain over a long period in a competitive market and to advance with a low-profit margin. At the same time, it's enough to cover the implementation of the goal of the company.

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2.2 Theoretical Review

The bedrock upon which this analysis may be based can be established by many theories. Although others are well recognized in studies, some of them are mostly focused on perceptions, too. This study reviews the theory on which this study is based.

The Lending Credibility Theory

The audit's primary goal is to improve financial reports integrity, according to the theory of lending credibility. In this way, they offered integrity as a service for their clients. Many investors see audited financial reports as offering guarantees to the users of the financial statements, which, according to them, enhances the degree of confidence that some investors have in the report of management (in the financial statement). Investors agree that increasing the quality of investment decisions improves their investment decisions' legitimacy, and this presumed advantage is widely viewed as the fact that investment decisions made on reliable information are of higher quality. Theories, like this one, can clarify and, as a result, add credibility to communication about financial statements' potential to smoothen overall market performance.

2.3 Empirical Review

According to (Chu, Simunic, Yec, & Zhang, 2014), the nature of competition in markets has been researched using the structural, behavioural, and performance framework of industrial organization. Conduct cannot be measured in terms of money but is gauged from a performance like a sum of money or net margins, profit margins or gross revenues, or profitability. After discovering correlations between different industries, we can speculate on the degree of competition in an industry by comparing its structures. For instance, if there were only a handful of audit service providers versus, say, the market for legal or consulting firms, this would become apparent when demand increases and the most profitable is taken. Audit services may have been poorly supplied with competition in this instance (Chu, et al, 2014).

There is an audit that people have said is capable of detecting accounting errors and finding mistakes in financial statements, one which works effectively (Aliyu, et al, 2015). Concerns about the perceived lack of competition in the audit and advisory services industry have been regularly discussed in the national media on several occasions for several years. One of the major fears is that an environment of limited competition will cause audit fees to increase with lower audit quality, which could harm businesses. A significant issue for the auditor industry is the dynamic essence of the auditor services. On the other hand, according to this theory, the association between supplier concentration and market power in the industrial organization literature is more concrete, while the relationship between supplier concentration and market power in auditing literature is more uncertain. The Herfindahl index serves as a simple metric for market concentration. It was discovered by (Pearson & Trompeter, 1994) that as audit fees decrease, audit volume increases. Bandyopadhyay and Kao (2004), however, discovered the opposite.

Gunn, Kawada and Michas (2019), found that supervisory bodies around the world are worried about the possibly damaging effect of high audit market attention on audit pricing and quality, but the findings of prior studies have failed to agree on this. To simulate higher barriers to entry for competing auditors, they tested the theory that audit fees rise for larger clients. They observed that audit fee is high for clients with high entry barriers, as considered by the concentration, the level of international operations, and the use of International Financial Reporting Standards (IFRS). Finally, they found an indication that audit quality was declining in the Big 4 industry concentration for these types of engagements. A high concentration of auditing firms would mean a rise in wealth transfer from stakeholders to audit firms.

3.0 METHODOLOGY

The research study employed a longitudinal research design A longitudinal research design is considered appropriate because it accommodates a significant pool of data collection. It increases the precision of the estimate obtained from the sample, due to a large number of observations from the panel data. The information for this analysis came from secondary sources. The information was gathered from the annual reports of Nigerian-listed deposit money banks from 2010 to 2019. All Deposit Money Banks listed on the Nigerian Stock Exchange (NSE) were included in this study's population. There are currently twenty (20) deposit money banks operating in Nigeria, with fifteen (15) of them listed on the Nigerian Stock Exchange. The sample size was determined using a non-probability approach based on the availability of up-to-date annual financial statements and a judgmental sampling technique. As a result, ten (10) DMBs listed on the floor of the Nigerian Stock Exchange were chosen for a ten-year term from among the deposit money banks listed on the Nigerian Stock Exchange.

The model specification for this study is based on lessons learned from the empirical review, which shows that audit quality is influenced by audit competition and other variables including firm size, leverage, and age of the firm. Accordingly, the model is presented as:

$$DAC = f\,(ADCONC, LEV.FIS, AGE, \mu) \qquad (1)$$

The functional equation above is expressed in econometric form as:

$$AUDQUL_{it} = \beta_o + \beta_1\, ADCONC_{it} + \beta_2\, Lev_{it} + \beta_3\, FS_{it} + \beta_4 lage_{it} + \mu i_t \qquad (2)$$

$$\mu_{it} = \rho_i + \varepsilon_{it} \qquad (3)$$

$$TACC_{it} = NI_{it} - NCF_{it} \qquad (4)$$

$$TACC_{it}/A_{it-1} = \alpha o_t\,(1/A_{it-1}) + \alpha_{1i}\,(\Delta REV - \Delta REC)/A_{it-1} + \alpha_{2i}\,[PPE_i/A_{it-1}] + \mu_{it} \qquad (5)$$

$$DA = [(TACC_{it}/A_{it-1})] - [(\alpha_{0t}\,[1/A_{it-1}] + \alpha_{1i}\,[(\Delta REV - \Delta REC)/A_{it-1} + \alpha_{2i}\,[PPE_{it}/A_{it-1}] \qquad (6)$$

Audit competition in this study is measured using Herfindahl Index (HI) which is a standard measurement of competition in literature (Pilot, 2008 as cited in Asien, 2014).

4.0 RESULTS AND DISCUSSION

Table 4.1 shows the approximate descriptive statistics for the variables used in the analysis. The average audit quality as calculated by absolute discretionary accrual is 0.078, with minimum and maximum values of 0.001 and 0.521, respectively, as shown in the table. The standard deviation of 0.072 which is close to the estimated mean implies that there is a relatively high variation in the audit quality of the listed banks for the period considered. The study found the average audit competition in absolute terms to be 0.406 with a minimum and maximum of 0.336 and 0.457 Herfindahl index respectively. The estimated standard deviation of 0.048 indicates no wide variation in the audit competition for the period considered. Furthermore, the approximate average log of age is 2.848, with 0.818, 0, and 3.871 as the standard deviation, minimum and maximum, respectively.

Table 4.1: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
ADQUL	-.078	.072	-.521	-.001
AUDCOM	-.406	.048	-.457	-.336
L-age	2.848	.818	0	3.871
Lev	.903	3.913	-1.349	44.595
FS	20.768	.979	18.485	22.508

Source: Author's Computation (2021)

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The average leverage is 0.903, with minimum leverage of -1.349 and median leverage of 44.595, and a standard deviation of 3.913, according to the estimated performance. Furthermore, the mean share price is calculated to be 20.768 with a standard deviation of 0.979, implying that the banks are not significantly different in size.

Table 4.2 shows the approximate correlation coefficients among the variables used in the analysis. The findings show a poor negative relationship between audit quality and audit competition. The approximate correlation coefficient of -0.039 suggests that audit quality and bank age have a poor negative relationship, while audit quality and leverage and firm size have positive yet weak relationships. The highest correlation coefficient is 0.496 between audit rivalry and firm size in Table 4.2, indicating that there is no clear association between the explanatory variables. The assumption is that the multicollinearity problem is unlikely to arise among the variables.

Table 4.2: Matrix of Correlations

Variables	(1)	(2)	(3)	(4)	(5)
(1) ADQU	1.000				
(2) AUDC	-0.231	1.000			
(3) L-age	-0.039	-0.307	1.000		
(4) Lev	0.089	-0.059	0.048	1.000	
(5) FS	0.160	-0.496	0.354	-0.163	1.000

Source: Author's Computation (2021)

The study used the variance inflation factor (VIF) to search for the existence of multicollinearity, and the results are shown in Table 4.3. The approximate VIFs for firm scale, audit competition, and log of age are 1.494, 1.392, and 1.184, respectively, while leverage has an estimated VIF of 1.064 and the mean VIF for all regressors is 1.284. Since none of the VIF is close to the VIF threshold of 10 for multicollinearity to exist, it is concluded that the results obtained in the study are free of a multicollinearity problem.

The model is free of specification error, according to the findings of the other diagnostic test, as the approximate Ramsey RESET p-value of 0.7238 failed to reject the null hypothesis of specification error. Furthermore, the Wooldridge test for serial correlation in panel data with an approximate p-value of 0.9403 did not reject the null hypothesis of no serial correlation. This means that there is no serial association in the findings. The Breusch-Pagan/Cook-Weisberg test for heteroskedasticity, on the other hand, revealed the existence of heteroskedasticity since the null hypothesis of presence homoscedasticity was rejected at a 1% level of significance, with a Breusch p-value of 0.000.

Table 4.3: Variance Inflation Factor

	VIF	1/VIF
FS	1.494	.669
AUDCOM	1.392	.718
L-age	1.184	.844
Lev	1.064	.94
Mean VIF	1.284	.

Source: Author's Computation (2021)

Table 4.4: Post Estimation Diagnostic Test for Model 1

Wooldridge test for autocorrelation in panel data		Remarks
H0: no first-order autocorrelation		No first-order autocorrelation
F(1, 9) = 0.006		
Prob > F = 0.9403		
Ramsey RESET test for Model Specification Error		No specification error
Ho: model is correctly specified		
F(3, 109) = 0.44		
Prob > F = 0.7238		
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity		There is heteroscedasticity
Ho: Constant variance		
chi2(1) = 22.19		
Prob > chi2 = 0.0000		
F-Test for Firm Effects		There is a firm effect
H0: all u_i=0 (no firm effect)		
F(9, 103) = 2.84		
Prob > F = 0.0049		
Hausman Test		Fixed effect model performs better than random effect model
Ho: difference in coefficients not systematic		
chi2(5) = (b-B)'[(V_b-V_B)^(-1)](b-B) = 5.75		
Prob>chi2 = 02182		

Source: Author's Computation (2021)

To obtain the panel regression results for the impact of audit competition on audit quality, the study conducted two specification tests including the F-test and the Hausman test to select the most consistent of the three alternative panel regression methods. The null hypothesis of no firm effect is rejected at the 1% level of significance, suggesting the existence of firm effects, according to the F-test findings with a p-value of 0.0049. The POLS will not be consistent with this analysis, according to the inference. The null hypothesis that the random effect is compatible cannot be dismissed at any standard degree of significance, according to the Hausman test p-value of 0.2182. As a consequence, the effects of the random effect should be used to interpret the data.

Table 4.5: Estimated Panel regression results

VARIABLES	(1)	(2)	(3)
	POLS	**FE**	**RE**
AUDCOM	-0.328**	-0.0754	-0.273**
	(0.0489)	(0.796)	(0.0165)
L-age	-0.0149*	-0.0724**	-0.0207
	(0.0903)	(0.0357)	(0.115)
Lev	0.00187***	0.00134***	0.00161***
	(0.000208)	(0.000259)	(0.00102)
FS	0.0100	0.0646	0.0186
	(0.197)	(0.155)	(0.168)
Constant	-0.380**	-1.248	-0.520*
	(0.0192)	(0.106)	(0.0502)
Observations	120	120	120
R-squared	0.084	0.142	
Number of fid		10	10

Robust pval in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Author's Computation (2021)

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The random effect results in Table 4.5 show that audit competition with a coefficient of -0.273 and p-value of 0.0165 has a negative influence which is significant at 5% on the audit quality of listed banks in Nigeria. This implies that a high level of competition results in lower quality of audit among listed banks for the period considered. The results may be due to unhealthy competition that can ensue with high competition which may lower the incentive (audit fee) and by implication, lower quality of audit by the audit firm. The results obtained here are similar to the findings of several other empirical pieces of literature that reported a negative impact of audit competition on audit quality in the emerging markets (Azizkhani, Sami, Amirkhani & Monroe, 2019).

This analysis shows that the log of age does not affect audit quality, with the estimated and exact influence of being -0.207 and 0.115. Similarly, the approximate coefficient of 0.0186 and corresponding p-value of 0.168 suggests that firm size has a positive but minor impact on the audit quality of Nigeria's listed deposit money banks. On the other hand, the study discovered a major negative impact of leverage on audit quality among Nigeria's publicly traded deposit money banks.

5.0 CONCLUSION & RECOMMENDATION

Following the results of the study, audit competition in Nigeria is found to be significantly detrimental to audit quality. This suggests that the demise of Arthur firm and the dominance of the big four firms in the Nigeria baking sector audit market does not harm the quality of audits carried out in the sector. The outcome of this study has implications for the stakeholders in the banking industry and Nigeria as a whole as it reveals that dominance of the big four firms in the Nigeria audit market does not call for serious concern.

It is therefore recommended that small and medium-sized audit firms (non-Big Four) should be encouraged to consider the option of merging to compete effectively with the Big Four audit firms in the market. The findings of this study have contributed to pieces of literature on the consequences of audit competition on audit quality in the Nigerian banking sector.

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EVALUATION OF START-UP FIRMS IN LAGOS, NIGERIA

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ABSTRACT

This study evaluated start-up firms in Lagos, Nigeria. The specific objectives of the study were: To assess the ownership structure of the firms and scope of practice; examine the motivating factor for establishing the firms, examine the challenges of the start-up firms and examine the performance of the start-up firms. The study populations are the 20 newly registered estate surveying and valuation firms in the last 5years in Lagos. Data were gathered through semi-structured questionnaires administered to the 20 newly registered estate surveying firms. Data gathered were analysed using frequency, relative importance index, and ranking. Findings from the study revealed that over 40% of the respondents are not involved in feasibility and viability study, property development and perfection of title. Also, 90% of the respondents are operating a sole proprietorship. Passion for professional practice is the most prominent motivating factor among the respondents with a relative importance index (RII) of 4.40 and the least is money with an RII of 3.00. Finance is the major challenge of start-up estate surveying and valuation firms in the study area with an RII of 4.80. The increase in the number of support staff is the most improved performance criterion among respondents, followed by an increase in the number of professional staff with RII of 4.50 and 4.45 respectively. The least performance criterion is an increase in the number of branches with RII of 3.15 and 3.05 respectively. Staff training and other recommendations were suggested to increase the estate surveying firm turnover.

Keywords: Start-up, Firms, Performance, Business Growth, Lagos

1.0 INTRODUCTION

The high population of Nigeria implies a high need for goods and services which requires land and landed resources. These land and landed resources are major ingredients of production activities and are associated with a lot of problems that necessitate the need for trained professionals to solve this plethora of problems (Oloyede, et al, 2011). The continuous increase in Nigeria population and the need for more landed resources necessitates the need for more trained Estate surveyors and valuers. The present population of Nigeria is estimated at 198million (National Population Commission, 2018) and the Registered Estate Surveyors and Valuers in Nigeria are less than 5000 (NIESV Directory, 2017). These figures justify the need for Estate Surveyors and Valuers to handle the landed property needs of this population. However, it becomes imperative to evaluate the new estate surveying and valuation firms being set up. This is necessary because start-up Estate Surveying and Valuation firms are not insulated from problems affecting other start-up businesses.

Salamzadeh and Kesim (2015) defined start-up businesses as newly born companies struggling for existence. Expatiating on this definition, it can be inferred that the survival of start-up businesses is not certain. The scholars identified factors that affect the certainty of survival of start-up businesses. This assertion was corroborated by Evers (2003) who posited that the initial stage of entrepreneurship is usually unknown and complex. The complexity of start-up businesses has motivated scholars to evaluate start-up businesses in different fields (Evers,

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2003; Kim et al, 2018). Start-up businesses thrive on the ideas and entrepreneurship skills of the promoter. However, there are motivating factors that encourage start-ups promoters to go into business.

The uniqueness of Estate Surveying and valuation start-ups is that the supply of Estate surveyors and valuers is less than the demand. Oloyede, et al (2011) corroborated this assertion and posited further that there is a deficit of registered Estate surveyors and valuers in Nigeria. The need for more registered Estate surveyors and valuers is an encouraging factor for more Estate surveyors and valuers to set up their private practice. However, there are still other reasons that can justify setting up and Estate surveying and valuation firms. Like all other start-up businesses, there is a need for evaluation of the newly set up estate surveying and valuation firms in the study area.

Previous studies revealed that there is an absence of relevant works of literature on the evaluation of estate surveying and valuation start-up firms. This identified gap shall be filled by this study through the following specific objectives: To assess the ownership structure of the firms and scope of practice; examine the motivating factors for establishing the start-up estate firms; To examine the challenges of the start-up estate surveying firms and; To examine the performance of the start-up firms. The study shall be evaluating start-up estate surveying and valuation firms that are not more than five years.

2.0 LITERATURE REVIEW

2.1 The Concept of a Start-Up Business

Salamzadeh and Kesim (2015) defined start-ups as newly born companies struggling for existence. These newly formed businesses are the product of novel ideas and quest to succeed in an existing industry or a new industry. Hall and Lerner (2010) described start-up businesses as businesses at an early stage of a business cycle. They posited further that businesses at this stage experience a lot of challenges. Salamzadeh (2015) asserted that most start-up businesses are small in size but metamorphosed into big companies after being able to surmount challenges. This assertion was corroborated by Nunez (2007) by establishing that some start-up businesses die at the initial stage of their existence due to the inability to surmount the challenges affecting startup businesses. Evers (2003) asserted that the establishment of a new business is not instantaneous and involved a complex process. The scholar posited further that the process of establishing a start-up is spontaneous and uncertain which makes it difficult to attribute a theory to the concept of a start-up.

Bhaves (1995) established a link between entrepreneurship and start-up. The scholar buttressed further that the process of a start-up is not instantaneous and evolves, as an entrepreneur needs to seek resources and compete in the marketplace. Deakins and Whittam (2000) described entrepreneurial start-ups as being characterized by uncertainty, in terms of outcomes, success, failure, survival, lack of knowledge and understanding. Start-up businesses metamorphosed from one stage to the other. There are theoretical perspectives to the formation of start-up businesses.

There are different challenges of start-up businesses. Shepherd et. al. (2000) identified the following as challenges of start-up business: finance, human resources, support mechanisms, and environmental elements. Gumel (2017) identified the following as challenges of start-up businesses: leadership, finance, competition, infrastructure and support. It is important to note that these challenges can vary from one type of business to another. Also, it might vary from one start-up initiator to another.

Despite the challenges experienced by start-up businesses, efforts were made to evaluate their performance. Reid and Smith (2000) proposed a strategy for measuring new businesses performance using data gathered from such businesses. The study established the following criteria for evaluating the performance of start-up businesses: employment growth, return on capital employed and labour productivity. They buttressed further that there is no unique way of evaluating the performance of a business but the performance evaluation process is relative. However, this study shall be evaluating the performance of start-up estate surveying and valuation firms in the study area adopting the following criteria: profit, turnover, clientele based, number of employees, departments and number of branches.

2.2 Empirical Studies on Start-Up Business

Reid and Smith (2000) assessed what makes start-up businesses successful. The data for the study was a sub-set of a large database being created on the lifecycle experience of one hundred and fifty new business starts over four years' period and was gathered through interviews. Data gathered were analysed using hierarchical cluster analysis. Different performance variables were adopted in the exploratory cluster analysis but the final sets adopted were: employment growth, profitability and productivity. Findings from the study revealed that 61% of the firms considered are categorized as low-performance firms, 33% categorized as medium performance firms and 10% categorized as high-performance firms. The study established that profitability is the most important start-up performance evaluation variable, followed by employment growth and productivity is the third-ranked variable. Also, the study established that there is a relationship between profitability and employment growth. The study concluded that there are other important performance evaluation variables not included in the clusters.

De Silva (2010) investigated the start-up and growth motives of entrepreneurs who own small and medium scale start-ups in Bradford, England. Data for the study was gathered through interviews and the analysis was done using narrative analysis. Findings from the study revealed that each entrepreneur is motivated by push and pull motives at the start-up stage and mainly pull factors at the growth stage. As a result of the observed pattern between the growth motives and entrepreneurial outcomes, the study classified entrepreneurs into three which are: those motivated to achieve growth of the venture to satisfy personal/family goal, those motivated as a means to enhance opportunities and those motivated to achieve growth due to passion for business.

Kim et al, (2018) examined the critical success factors affecting design start-up businesses in Seoul, South Korea. The study surveyed 24 experts from 12 design-based small venture start-ups and 12 technological-based mediums and small start-ups. The analysis was done using the analytic hierarchy process (AHP) which is a mathematically based, multi-objective, decision-making tool. Findings from the study revealed that idea commercialization is the most important success factor as an innovation criterion among the four success criteria of design start-ups. The study concluded that goal orientation and entrepreneurial competency are important success factors for design start-ups. These empirical studies have examined start-up businesses in different sectors and different countries of the world. However, there are no studies that have examined the performance of start-up estate surveying firms in Nigeria. This study aimed at filling this gap by examining start-up estate surveying and valuation firms in Nigeria.

2.3 Theories of Start-Up Business

The origin of the theory of start-up can be traced to Van de Ven et al (1984) who linked start-up theories to three sources which are: entrepreneurial, organizational and ecological theories. However, the scholars emphasized organizational theory which emphasized that the condition under which an organization is planned and the process followed in its initial development have a consequence on the structure and performance of the company in the future. However, previous studies posited that the organizational theory is silent on start-up evolution or organizational evolution (Boekerb and Wiltbank, 2005; Salamzadeh, 2015). Numerous theories address start-up among which are: ecology theory propounded by Scholz and Reydon (2009), organizational configuration theory by Miller (1990), Contingency theory by Tosi and Slocum (1984), resource dependence theory Davis and Cobb (2010), uncertainty theory Kamps and Polos (1999). However, there are controversies on the extent to which all these theories address start-up.

In addition to these theories, some theories did not address start-up but have a link to start-up. An example of such theory is the management theory that focused on getting things done by other people of coordination of activities of others as postulated by Hofstede (1999). The theory postulated further that management theory focuses more on the individual or team coordinating the activity of a start-up business rather than a start-up business. However, other management theories focused more on start-up businesses (Davila et. al., 2003). Theories like strategic management theory (Pettigrew et al., 2001), small business governance theory (Ritchie and Richardson, 2000), human resource management (Miles and Rosenberg, 1983), team management (Kaiser and Muller, 2013), complexity theory (See and Lan, 2006). It is important to note that all these theories are not related and mostly describe start-up as examples.

Another related theory is the entrepreneurial theory that focused on the attributes of the founder or promoter of a new organization. Although, there is a minimal link between the entrepreneurial theory and start-up due to less focus on the founder but more concentration on other related issues (Van de Ven et al, 1984). Salamzadeh (2015) categorized entrepreneurship which is macro-level theory and micro-level theories. The entrepreneurial theory is more related to start-up because entrepreneurship deals with the idea, creativity, innovation, new product or service development and opportunity. The extension of the entrepreneurial theory is the organizational theory which has to do with the management of people. Start-ups are about turning ideas into businesses which is a critical point in entrepreneurship studies. This study is hinged on entrepreneurial theory and organization theory. The entrepreneurial theory is adopted because the theory emphasized the growth of a business with a special focus on the idea, innovation, new product or service development and opportunity which is very necessary for a start-up business if it is going to move from the start-up stage to the growth stage.

2.4 Estate Surveying and Valuation Practice in Nigeria

The Nigeria Institution of Estate Surveyors and Valuers (NIESV) which is the professional association of Estate Surveyors and Valuers was founded in the year 1969 by few qualified General Practice Chartered Surveyors mainly trained in the United Kingdom. The body has grown from an initial membership of 10 professionals into more than 5000 members spread all over Nigeria. The government of the Federal Republic of Nigeria recognized the body through the promulgation of the Estate Surveyors and Valuers Registration Decree No. 24 of 1975. Ifediora (2009) identified the following as the functions of Estate Surveyors and Valuers: Estate Agency, property management, property development, arbitration services, property rating, compensation and compulsory acquisition, land economy, valuation, facilities management, development feasibility and viability appraisal and auctioneering. Members of the Nigeria Institution of Estate Surveyors and Valuers are registered by the Estate Surveyors and Valuers Registration Board of Nigeria (ESVABON) which is the registration Board of the institution. The registration Board regulates the practice of the profession of Estate Surveying and Valuation in Nigeria.

There are different grades of membership of the Nigeria Institution of Estate Surveyors and Valuers (NIESV) starting with the student members, probationer/graduate member, associate member, and a fellow of the institution. There are laid down regulations that must be fulfilled before a member can become an associate member of the institution. The seal and stamp of practice are issued by the Estate Surveyors and Valuers Registration Board of Nigeria (ESVABON) after the associate member has fulfilled the registration criteria. A registered Estate Surveyor and Valuer can practice in any part of Nigeria. Registered Estate Surveyors and Valuers can then register firms with Estate Surveyors and Valuers Registration Board of Nigeria (ESVABON) and Corporate Affairs Commission, Abuja for private practice. There are state branches of the Nigeria Instruction of Estate Surveyors and Valuers in all the states of Nigeria.

3.0 METHODOLOGY

A quantitative research approach was employed in this study of which 20 questionnaires were administered to the 20 newly registered Estate Surveying and Valuation firms. The purposive sampling technique was employed in gathering data from 20 newly registered Estate Surveying and Valuation firms in the study area.

The 20 Estate Surveying and Valuation firms are those newly registered firms that are not more than 5years as of 2018 according to the record of the Nigeria Institution of Estate Surveyors and Valuers (NIESV) Lagos state. The 20 questionnaires administered were retrieved. The 100% retrieval rate can be attributed to easy access to the newly established estate surveying and valuation firms and the small number of the study population. Data gathered were presented and analysed using descriptive Statistics like frequency table and relative impact index.

A frequency table was adopted for analysing the ownership structure of the start-up estate surveying and valuation firms. Relative importance index with a 5 point Likert ordinal scale was used to measure the independent variables in the following sections of the analysis: motivating factors for start-up, challenges of start-up estate surveying and valuation firms, and performance of start-up estate surveying and valuation firms.

4.0 RESULTS, PRESENTATION AND DISCUSSION

Table 4.1 depicts the scope of Professional practice by the start-up Estate Surveying and Valuation firms in the study area. It was revealed that 100% of the firms engaged in property valuation, property management and property agency assignments. The study revealed that 40% of the respondents were involved in property development and 60% of the respondents are involved in feasibility and viability studies. Finally, the study revealed that 45% of the respondents were involved in the perfection of the title. It can be inferred from the table that property valuation, property management and property agency were the most common professional briefs executed by the start-up estate surveying and valuation firms in Lagos State.

Table 4.1: Scope of Professional Practice

Fields of Practice	Frequency	Percentage
Property Valuation	20	100
Property Management	20	100
Property Agency	20	100
Property Development	8	40
Feasibility & Viability Study	12	60
Perfection of Title	9	45

Source: Field Survey (2020)

Table 4.2 depicts the ownership structure of the start-up estate surveying and valuation firms in the study area. The study revealed that 90% of the respondents which translates into 18 start-up estate surveying and valuation firms are into sole-proprietorship professional practice and

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the remaining 10% which translates into 2 start-up estate surveying and valuation firms are into a partnership of two people. The implication of this is that partnership is not considered as a favourable business model by the start-up estate surveying and valuation firms in the study area.

Table 4.2: Ownership Structure of Start-up Estate Surveying and Valuation Firms

Ownership Structure	Frequency	Percentage
Sole Proprietorship	18	90
Partnership of two	2	10
Partnership above two	0	0
Total	20	100

Source: Field Survey (2020)

Table 4.3: Motivating Factors for Establishing Estate Firm

Motivating Factor	Most Prominent	Prominent	Less Prominent	Rarely Prominent	Least Prominent	RII	Rank
Control	8	7	2	1	2	**3.90**	**2nd**
Creation of jobs	7	7	3	0	3	**3.75**	**3rd**
Unemployment	3	6	5	2	4	**3.10**	**5th**
Money	5	2	4	6	3	**3.00**	**6th**
Passion for professional practice	12	5	2	1	0	**4.40**	**1st**
Large Clientele base	5	3	7	4	1	**3.55**	**4th**

Source: Field Survey (2020)

Table 4.3 depicts the motivating factors for establishing the start-up estate surveying and valuation firms in the study area. The study revealed that "Passion for professional practice" is the most prominent motivating factor for setting up an estate surveying and valuation firm in the study area with a relative importance index (RII) of 4.40. This is followed by "Quest for control of business" with a relative importance index of 3.90. The third is the creation of jobs with a relative importance index of 3.75 and the fourth is having a large clientele base by the principal partners of the start-ups with a relative importance index of 3.35. Unemployment is the fifth-ranked motivating factor for setting up the practice of estate surveying and valuation with a relative importance index of 3.10. The least ranked motivating factor is money with a relative importance index of 3.00.

Table 4.4: Challenges of Start-up Estate surveying and valuation firms

Challenges	Most Prevalent	Prevalent	Indifferent	Less Prevalent	Rarely Prevalent	RII	Rank
Clients	14	3	2	1	0	**4.50**	**2nd**
Finance	16	4	0	0	0	**4.80**	**1st**
Infrastructure	11	4	3	2	0	**4.20**	**4th**
Registration& Regulations	7	6	3	2	2	**3.70**	**7th**
Human Resources	10	3	4	1	2	**3.90**	**5th**
Competition	13	4	2	1	0	**4.45**	**3rd**
Requisite Skill	9	4	3	3	1	**3.85**	**6th**
Support	5	5	4	2	4	**3.25**	**8th**

Source: Field Survey (2020)

Table 4.4 depicts challenges encountered by the start-up estate surveying and valuation firms in the study area. The major challenge of start-estate surveying and valuation firms in the study area was financed with a relative importance index of 4.80. This is followed by the availability of clients which ranked second with a relative importance index of 4.50. Next to this was competition from colleagues which ranked third with a relative importance index of 4.45. The absence of Infrastructure for setting up private practice with a relative importance index of 4.20 was the fourth challenge experienced by start-up estate surveying and valuation firms. Other challenges encountered by the start-up estate surveying and valuation firms include human resources problem which ranked fifth with a relative importance index of 3.90, having required skill to practice which ranked sixth with a relative importance index of 3.85, registration and regulation problem ranked seventh with a relative importance index of 3.70 and availability of support was the least challenge with a relative importance index of 3.25. This finding implies that funding as a result of a low clientele base is the major problem experienced by start-up estate surveying and valuation firms.

Table 4.5: Performance of Start-up Estate Surveying and Valuation firms

Performance Criteria	Significantly Increase	Increase	Static	Reduce	Significantly Reduce	RII	Rank
Turn-over	6	3	3	4	4	**3.15**	**5th**
Branches	4	4	5	3	4	**3.05**	**6th**
Departments	8	6	4	1	1	**3.95**	**4th**
Clientele Base	10	6	3	1	0	**4.25**	**3rd**
Support Staff	13	4	3	0	0	**4.50**	**1st**
Professional Staff	14	3	1	2	0	**4.45**	**2nd**

Source: Field Survey (2020)

Table 4.5 evaluates the performance of start-up estate surveying and valuation firms in the study area. The study revealed that the major increase that the start-up estate surveying and valuation firms experience within a time-frame of 5 years considered is the increase in the number of support staff with a relative importance index is 4.50. This is followed by an increase in the number of professional staff that ranked second with a relative importance index of 4.45. The third is the increase in clientele base with a relative importance index of 4.25. Fourth is the increase in the number of departments with a relative importance index of 3.95. Fifth if an increase in turnover with a relative importance index of 3.15 and sixth is the increase in the number of branches with a relative importance index of 3.05. This finding implies that the increase in the number of staff and clientele base does not translate into an increase in turnover and the number of branches.

5.0 CONCLUSION AND RECOMMENDATIONS

In conclusion, most of the start-up estate surveying and valuation firms in Lagos State are sole proprietorship businesses that operate in limited aspects of the profession of estate surveying and valuation. Most of the start-up estate surveying and valuation firms were established out of the passion to practice the profession of estate surveying and valuation. These estate surveying and valuation firms experience some challenges like other start-up businesses. Finally, the increase in staff strength of these estate surveying and valuation firms and clientele base of the estate surveying firms does not translate into an increase in turnover and number of branches. Therefore, the start-up estate surveying and valuation firms can be concluded to perform poorly.

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The following recommendations are suggested to improve the productivity of start-up Estate Surveying and Valuation firms. Firstly, the Professional body of Estate Surveyors and Valuers in Nigeria should advise start-up Estate Surveying and Valuation firms to embrace partnership as against the sole proprietorship business model as presently being used. A partnership business model will help start-up estate surveying and valuation firms to be involved in other aspects of the estate surveying and valuation profession where they are lagging. The Nigeria Institution of Estate Surveyors and Valuers should come up with measures that will increase the clientele base of start-up estate surveying and valuation firms and consequently improves their finances. Start-up Estate Surveying and Valuation firms should consider collaborating with other professional estate surveying and valuation firms to militate against some of the challenges of start-up Estate Surveying and Valuation firms. Estate Surveyors and Valuers Registration Board of Nigeria should come up with guidelines that will curb unhealthy competition to encourage start-up estate surveying and valuation firms to grow. Start-up Estate surveying and valuation firms should be organizing regular professional training programmes for their staff to increase their turnover.

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EFFECT OF INTERNATIONAL PUBLIC SECTOR ACCOUNTING STANDARD (IPSAS) ADOPTION ON BUDGET CREDIBILITY IN NIGERIAN PUBLIC SECTOR

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ABSTRACT

This study examined the effect of International Public Sector Accounting Standard (IPSAS) adoption on budget credibility in Nigeria public sector using Osun state as a case study. The study was based on primary data collected using a well-structured questionnaire from 118 respondents from the office of the Accountant General, Office of the Auditor-General for state government and Office of the Auditor General for local governments of Osun State. The data were analysed using descriptive statistics for the preliminary analysis and further analysis was done using ordinary least square (OLS) multiple regressions to ascertain the impact of IPSAS adoption on the dependent constructs of the study. The study found that IPSAS adoption had a positive and significant impact on budget credibility in Nigeria. Specifically, the results of the multiple regression indicated that adoption of IPSAS was characterized by a 7 percentage points increase in the credibility of the public sector budget in Osun state. In addition, the findings of the study revealed the crucial role of ICT capacity and accounting staff expertise in achieving a credible budget in the public sector. In line with the findings above, this study recommends that relevant stakeholders should provide enabling environment for the proper functioning of IPSAS in government departments and agencies to realise the full potential of the accounting standard.

Key Terms: Budget credibility; IPSAS; public financial management; public sector

1.0 INTRODUCTION

Budget credibility is one of the key pillars of public financial management of a country (Public Expenditure and Financial Accountability [PEFA] 2016). Public financial management (PFM) in a nation is very important. The broad objectives of PFM are to achieve overall fiscal discipline, efficient and effective allocation of resources and efficient delivery of services (Public Expenditure Working Group of World Bank, 2005).

PFM is essential because tax-payers of any country expect their public finances to be well-managed, allocated effectively, used for quality service delivery and for the provision of a secure and stable environment in which a society may exist and prosper (Public Sector Financial Management Committee [PSFMC] of Confederation of Asian and Pacific Accountants [CAPA], 2014). PFM ensures that public resources are protected at all times and utilized efficiently, effectively, appropriately and economically. It also serves as the pillar for achieving sustainable and effective decision making, quality service delivery and achievement of expected results in public sector organizations, as all decisions and all activities have financial consequences either directly or indirectly (International Federation of Accountants [IFAC] & Chartered Institute of Public Finance and Accountancy [CIPFA], 2014). One of the major means through which these could be achieved is through a credible budget.

A government budget is a financial plan of revenue and expenditure of government within a specified period usually a year. The public sector budget is used as a tool for allocating public resources. A complete budget process entails effective planning, monitoring and implementation of the recurrent and capital proposal. In Nigeria however, the budgeting culture mostly begins and ends with planning alone which implies the existence of poor budget implementation. Also, the government rarely stick to the budget details at the execution stage. This implies that the Nigerian budget system lacks credibility (Ibanichuka & James, 2014).

Attempts have been made in several quarters to investigate the cause of the poor performance of Nigeria budgeting system. A section of literature reveals that the problem may not be unconnected with the cash-based accounting system adopted in the country's public sector (Ijeoma & Oghoghomeh, 2014; Omolehinwa & Naiyeju, 2018). The use of a cash-based accounting system limits the provision of important information required for programme planning, development and both financial and physical appraisal of performance (Jones & Browrey, 2013).

The Nigerian public sector is characterized by many ills which include a lack of effective financial management, accountability, transparency and the use of reporting system which does not disclose detailed information about the financial activities of the government (Adegite, 2010; Omolehinwa & Naiyeju, 2018). In recognition of the public financial management ills in Nigeria public sector caused in part by the use of cash-based accounting, the federal government of Nigeria through the office of the Accountant-General of the federation has developed a public sector financial reform that is accrual-based. In particular, the country adopted the International Public Sector Accounting Standards which was produced by the International Federation of Accountants (IFAC) through the International Public Sector Accounting Standards Board (IPSASB). It has been argued in several quarters that IPSAS has the potential to reform the public financial management as well as budget credibility in a country. IPSAS introduction formed an essential part of the reform of the public sector and the most important aspect of the global revolution in government accounting in response to persistent demands for higher government financial accountability and transparency (Chan, 2008; Carlin, 2005). IPSAS provides high-quality standards which catalyse sound financial statements which in turn improves operational performance, accountability and efficient allocation of resources (Price Waterhouse Coopers [PWC], 2013).

In Nigeria, IPSAS adoption is a new development and several studies have been carried out in this area. However, most of these studies failed to investigate the impact of IPSAS on budget credibility in the Nigerian public sector. Therefore, this study seeks to fill the gap by investigating the effect IPSAS adoption has on budget credibility in the Nigerian public sector using Osun state as a case study. Hence, the objective of this study is to examine the effect of IPSAS adoption on budget credibility in the Nigerian public sector.

The rest of the paper is arranged into four sections. The next section presents the review of literature while section three discusses the methodology used in the study. Section four presents the results and discussion while section five contains the study's conclusion and recommendations.

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2.0 LITERATURE REVIEW

2.1 Conceptual Review

Budget Credibility

The term budget credibility has been defined loosely in literature in terms of the deviation between budget forecasts and out-turns (Elberry & Goeminne, 2020; Pina & Venes, 2011). Thus, Budget credibility describes the ability of governments to accurately and consistently meet their revenue and expenditure targets. It is also known as budget reliability and shows that the budget is realistic and implemented as intended by comparing actual revenues and expenditures with the approved budget.

International Public Sector Accounting Standards (IPSAS)

IPSAS are financial reporting standards set by International Public Sector Accounting Standards Board (IPSASB) for use by public sector entities. They are the equivalent of International Financial Reporting Standards (IFRS) which are applied by private sector organizations in the preparation of their financial statements (Gwenda, 2017). According to Ademola, Adegoke and Oyeleye (2017), the development of IPSAS originated from the accounting development as a way to improve the transparency and accountability of public sector entities by improving and standardizing financial reporting.

IASB (2019) posited that IPSAS are designed to apply to public entities that meet all the following criteria:

i. Are responsible for the delivery of services for the benefit of the public and/or for income and wealth redistribution;

ii. Mainly finance their activities, directly or indirectly, through taxes and/or transfers from other levels of government, social contributions, debt or fees; and

iii. The primary objective is not to make profits.

The IPSAS consists of forty-two accounting standards which are based on accrual accounting and one cash basis IPSAS to be adopted in the preparation of financial statements by governments that are still using cash basis accounting and want to migrate to accrual-based IPSAS. Most IPSAS are set based on International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS) which are set by the International Accounting Standards Board (IASB) to be adopted by private sector organizations in the preparation of their financial statements. According to the Organization of Economic Cooperation and Development [OECD]/IFAC (2017) IPSAS are fully or partially adopted by approximately eighty countries, as well as international organizations such as the European Commission, the North Atlantic Treaty Organization, the OECD countries and the United Nations.

Cash basis and Accrual Basis of Accounting

Cash basis of accounting is an accounting basis under which revenue is recorded only when cash is received, and expenditure is recorded only when cash is paid, even though the transactions leading to the receipt or payment of cash now may have occurred in the previous accounting period. In Nigeria, government financial statement was formerly prepared using this basis and was adopted because it is simple to understand. IFAC (1998) (as cited in Omolehinwa & Naiyeju, 2018) reported that, on the characteristic of understandability, the information provided under the cash basis of accounting scores highly, also, financial reports prepared under the cash basis are likely to be timely because it is easy to compile information that is on a cash basis.

Accrual basis accounting, on the other hand, is a basis of accounting under which revenue is recorded when earned and expenditure is recorded as the result in liabilities is known or when benefits are received irrespective of the fact that cash will be paid or received wholly or partly in another accounting period.

2.2 Theoretical Review

A number of theories can explain the link between accounting standard adoption and budget credibility some of which include the stewardship theory, Common pool resource theory and agency theory. This study is however anchored on agency theory which was propounded in 1976 by Jensen and Meckling. The theory defines the relationship between the agent and the principal as a formal or implied contract in which the principal employs the agent to take care of the principal's interests. Agency theory holds that both principals and agents act in their self-interest which can work against their mutual benefits (Fraser, 2020). Agency theory is based on the problems associated with separation of ownership and control.

Jensen and Meckling (1976) expressed the agency problem as a problem that comes up when the principal agrees with the agent to make decisions on behalf of the principal. It was further explained that an agency problem occurs as agents (government) tend to conceal information from the principals (public) and take actions towards achieving their interests by not sticking to the budget passed by the legislative arm. In line with agency theory, the excesses of the agent can only be curtailed by monitoring and control measures. These measures include the implementation of appropriate accounting standards that will make it difficult if not impossible for the agents to override the interest of the principals (the general public). Thus, accounting reform in form of IPSAS adoption may help to curtail the excesses of the government and thus improve the credibility of the budget.

2.3 Review of Empirical Literature

Nkwagu, Uguru and Nkwede (2016) examined the Implications of IPSAS on financial accountability in the Nigerian Public Sector. The study aims at determining the implications of IPSASs on accountability of the Nigerian public sector with an emphasis on its effects on efficient management of public funds, effective budget implementation, and checking of cases of corruption among public officers in the South Eastern states of Nigeria. Findings from the study showed that IPSAS adoption enhances accountability in the Nigerian public sector as the standards pave way for improved management of public funds. It further shows that the application of IPSAS paves way for effective budget implementation and checks possible cases of corruption in the Nigerian public sector.

Ubong and Dominic (2018) carried out a study to determine the effect of International Public Sector Accounting Standard (IPSAS) 18, 22 and 24 on the performance of Budget in Nigerian fiscal allocation and preparation. An ex-post facto research design was adopted for the study. The population was 350, and the sample was 257 which include; Economists, Accountants, Internal Auditors and other relevant staff in the Federal Ministry of Budgeting and Economic Development in Federal Capital Territory, Abuja. The research objectives were analyzed using a simple percentage and frequency. The findings show that the adoption of IPSAS 18, 22 and 24 will lead to efficient budget allocation, enhanced budget performance and halt the activities of corrupt public officers.

In a study to examine the impact of fiscal transparency on budget credibility in developing countries, Elberry and Goeminne (2020) find from the regression analysis of the data that improvement in the risk oversight from public sector entities play a significant role in bridging the gap between budgetary forecast and out-turns (budget credibility) in developing countries.

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In particular, the study reported that disclosure of quality information enhances the credibility of developing countries budgets.

De Renzio and Cho (2020) studied the determinants of budget credibility using data from 120 Public Expenditure and Financial Accountability (PEFA) assessments conducted in 94 countries. The study assessed budget credibility from three angles including aggregate expenditure deviations, aggregate revenue deviations, and deviations in the composition of spending. The results of the regression analysis adopted in the study revealed that comprehensive reporting through adequate accounting and reporting standards has a significant positive impact on budget credibility.

Mustapha (2019) study also assessed the impact of the public financial management framework on budget deviations. The study reported that the quality of public financial management plays a significant role in the credibility of the budgeting system. In particular, the study revealed that better public financial management facilitated by adequate accounting standards has a significant positive impact on budget credibility.

From the foregoing, empirical evidence on the link between IPSAS adoption and budget credibility is extremely shallow. No known study has specifically empirically investigated how IPSAS adoption has affected the credibility of budget in either developing countries in general or the Nigerian public sector in particular. Hence, this study serves as a pioneer work linking IPSAS adoption with budget credibility in an empirical setting.

3.0 METHODOLOGY

Research Design

This study is based on a survey research design involving the use of primary data collected from the respondents using a well-structured questionnaire. The structured questionnaires were administered by the researchers. The use of questionnaires for this study is justified because it allows the researchers to reach many respondents within a limited time (Mugenda & Mugenda, 2003). Each questionnaire is made up of structured closed-ended questions divided into two (2) sections namely: section A (demographic information) and section B (Budget Credibility, ICT competence and staff expertise). The questions in section B are collected using the reflexive method as respondents who have been in service at least two years before the adoption of IPSAS and still in service at the time of the study are asked to give their perception on each of the items before and after the adoption of IPSAS. The four-point Likert scale was adopted in the questionnaire in which 1 represents strongly disagree, 2 disagree, 3 agree and 4 strongly agree.

Population and Sample Size

The population of this study consists of accountants and auditors from the office of the Accountant General, office of the Auditor General for state and office of the Auditor General for local governments of Osun state. The accountants and auditors were two hundred and seven as of 31st December 2019.

The samples for the study were selected using purposive and quota sampling techniques. The sample size is obtained using Krecjie and Morgan (1970) sample size selection formula stated as:

$$s = X^2NP(1-P) \div (d^2(N-1) + X^2P(1-P))$$

Where: s is the required sample size; X^2 is the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841); N is the population size; P is the population proportion which assumed to be 0.50 since it would provide the maximum sample size and; d is the degree of accuracy expressed as a proportion (0.05).

Using the formula above, the sample size for this study which has a population of 207 was obtained as follows:

$$s = 3.841(207)(0.5)(1-0.5) \div ((0.05)^2(207-1) + 3.841(0.5)(1-0.5))$$

This gives

$$s = 198.7718 \div (0.515 + 0.96025)$$

Then,

$$s = 135$$

Therefore, the sample size of this study was 135 respondents selected across the state's MDAs.

Validity and Reliability of Research Instrument

The reliability of this study's research instrument was ascertained using the widely known Cronbach's Alpha test. The results of the Cronbach Alpha revealed an Alpha coefficient score of not less than 0.7 for each of the constructs implying that the instrument was reliable. The test was based on a pilot study of 20 respondents selected from the sample of this study and the results are presented in Table 3.1.

Table 3.1: Cronbach Alpha Test Score for the Instrument Reliability

Components	No of Items	Cronbach Alpha
Budget Credibility	6	0.76
Staff Expertise	3	0.71
ICT Competence	4	0.78

Source: Author's Computation, 2020

The validity of the instrument was assessed through the face and content validity. Copy of questionnaire is given to two experts in the field including a professor of accounting and a senior lecturer from economics to validate the items in the questionnaire.

Model Specification

The specification of the model in this study relies on the proposition of the agency theory which forms the theoretical framework of this study and reveals a potential link between IPSAS adoption and budget credibility. The reviewed empirical works of literature similarly show the impact of IPSAS adoption on budget credibility. In line with such submissions, the following relation is formulated:

$$\text{BCR} = f(IPSAS) \qquad - \qquad (1)$$

Where: BCR is budget credibility and; IPSAS represents International Public Sector Accounting Standard Adoption.

Equation (1) reveals a functional relationship between IPSAS adoption and budget credibility. From the equation, BCR is the dependent variable while IPSAS is the independent variable.

To increase the explanatory power of the model and avoid omitted variable bias, it is imperative to introduce control variables into the relation in (1) above. Information Communication Technology (ICT) and financial expertise are introduced as the control variables. This is because ICT facilitates the interconnectivity among different agencies and within an agency. Similarly, the financial expertise of the staff in charge of the treasury is also essential to fully realise the potential impact of IPSAS on budget credibility. Since ICT and the technical

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expertise of the staff are an integral part of accounting in the contemporary world, the study introduces ICT adoption and financial expertise as control variables. Therefore, equation (1) becomes

$$BCR = f(IPSAS, ICT, FEXPT) \quad - \quad - \quad - \quad (2)$$

The equation in (2) which expresses the functional relationship between IPSAS and BCR can be expressed in linear stochastic form as:

$$BCR_{it} = \beta_0 + \beta_1 IPSAS_{it} + \beta_2 ICT_{it} + \beta_3 EXPT_{it} + \mu_{it} \quad - \quad - \quad - \quad (.3)$$

In equation (3), β_0 represents the intercept term while βs are the corresponding slope coefficients. ***i*** represents each respondent while ***t*** represents time which equals zero for pre-IPSAS or cash-based accounting period and 1 for IPSAS or accrual-based accounting period.

Method of Data Analysis

The data obtained from a structured questionnaire developed for this study and administered to the various respondents in this study were analysed using the descriptive statistics tools of percentages, frequencies and mean. The mean rating was used for the analysis where an item with a mean score of above 2.0 on a four-point Likert scale is said to attract consensus from the respondents as to whether any of the independent variables affect budget credibility. In terms of the inferential statistics, the study used Ordinary Least Square (OLS) Multiple Regression. The data for the study were analysed mainly using STATA 14.0 statistical software for preliminary analysis and E-views for the multiple OLS.

4.0 RESULTS, INTERPRETATIONS AND DISCUSSION

Social-Demographic Characteristics of Respondents

Table 4.1: Distribution of Respondents by Socio-Demographic Characteristics

Item	Definition	Frequency	Percent
Gender	Male	76	64.41
	Female	42	35.59
	Total	**118**	**100**
Age	20-30	31	26.27
	31-40	44	37.29
	41-50	23	19.49
	Above 50	20	16.94
	Total	**118**	**100**
Education	O'level	0	0
	OND/NCE	17	14.41
	HND/BSc	67	56.78
	MSc/MBA/Ph.D	34	28.81
	Total	**118**	**100**
Office	Accountant General	78	66.10
	Auditor General for state	25	21.19
	Auditor General for LGs	15	12.71
	Total	**118**	**100**
Years in Service	0-5 years	18	15.25
	6-10 years	42	35.59
	11-15 years	38	32.20
	Above 15 years	20	16.95
	Total	**118**	**100**

Source: Field Survey, 2020.

The results in Table 4.1 reveal that 76 representing 64.41 percent of the respondents are male while 35.59 percent of the respondents are female. The implication is that a strong majority of accountants and auditors are male. The results also show that 26.27 percent of the respondents are between the age of 20 and 30 years, 37.29 percent are between the age of 31 and 40 years, 19.49 percent of the respondents are between the age of 41 and 50 years while the remaining 16.94 percent of the respondents are older than 50 years indicating that majority of the respondents are within the age of 31 and 40 years. In addition, the results reveal that 66.10 percent of the respondents are from the office of the Accountant General, 21.19 percent of the respondents are from the office of the Auditor General for state government while 12.71 percent of the respondents are from the office of the Auditor General for local governments.

Furthermore, the results show that 0 percent of respondents have O'level as their highest qualifications, 14.41 percent have ND or NCE, 56.78 percent have HND or B.Sc. and 28.81 percent have a postgraduate qualification (M.Sc. /MBA/Ph.D.). The implication is that a strong majority of the respondents have at least first degree and by this, they are expected to be knowledgeable on the subject matter of this study. In terms of experience, the results reveal that 15.25 percent of the respondents have been in service for between 0 and 5 years, 35.59 percent have been in service for 6 to 10 years, 32.20 percent of the respondents have been in service between 11 and 15 years and 16.95 percent of the respondents have been in service for more than 15 years. This shows that a strong majority of the respondents have been in service for more than 6 years. Hence, they have reasonable experience and information on budget credibility in the Pre- IPSAS adoption and Post- IPSAS adoption period.

T-test Results

The t-test is used for the bivariate analysis of the results to ascertain the differences in mean rating of each of the items making each of the study variables between the period before the adoption of IPSAS and the period following IPSAS adoption. The results of the t-test are presented in Table 2.

Budget Credibility before and After the Adoption of IPSAS

The t-test results for the analysis of the perception of respondents as regards the budget credibility in Osun state before and after the adoption of IPSAS are presented in Table 2. The results in Table 4.2 revealed that respondents perceived a significant increase in the implementation of government total expenditure from a mean rating of 2.848 in the period before the implementation of IPSAS to the period after IPSAS implementation given the estimated p-value of 0.000.

Table 4.2: T-test Results on Budget credibility in the Public Sector

S/N		**Before**	**After**	**Diff**	**Sig**
1	Accounting standards in place facilitate the implementation of government total expenditure.	2.848	3.509	0.661	0.000
2	Proper budget implementation.	2.687	3.517	0.831	0.000
3	Budget documentation seamless	2.797	3.491	0.695	0.000
4	Government agencies do not operate outside budgetary provisions.	2.848	3.322	0.474	.001
5	Public have access to all government financial information	2.966	3.356	0.39	.004
6	Government revenue generation from all sources is well captured in the budget.	3.043	3.305	0.263	0.04

Source: Author's Computation, 2020

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Also, the results in Table 4.2 show that the respondents perceived that the adoption of IPSAS facilitates proper budget implementation as the mean rating increases from 2.687 to 3.517 with a p-value of 0.000. The estimated mean difference of 0.695 with a p-value of 0.000 indicates that the respondents perceived that budget documentation has become more seamless after the adoption of IPSAS.

Furthermore, the mean difference of 0.474 and p-value of 0.001 indicates that respondents perceived a reduction in the propensity to operate outside budgetary provisions by the public sector. The results also reveal that respondents perceived an improvement in the public access to government financial information as the mean rating increases from 2.966 to 3.356 with a p-value of 0.004. An increase in the mean rating of 3.043 to 3.305 with a p-value of 0.04 reveals that respondents perceived an increase in the capturing of revenue generated from all sources in the budget.

ICT Capacity and Financial Expertise of the Public Sector before and after the adoption of IPSAS

The results in Table 4.3 revealed that respondents were more satisfied with the computer and hardware provided for the accounting, internal audit and finance departments in the state given the increase in mean rating by 0.483. Similarly, respondents perceived a significant increase in the provision of modern software for accounting, finance and internal audit units by the government since the mean rating increases by 0.788 with a p-value of 0.000. It was also revealed that the staff ICT knowledge has significantly improved from the mean rating of 2.856 to 3.568 with a p-value of 0.000. However, the respondents did not perceive any significant difference in the internet connectivity at the accounting, finance and internal audit units during the period before IPSAS adoption and after the adoption of IPAS given the corresponding p-value of 0.270.

Table 4.3: T-test Results on ICT penetration in the Public Sector

S/N		**Before**	**After**	**Diff**	**Sig**
1	Computers and other hardware provided for the accounting, internal audit and finance units are satisfactory	3.084	3.568	0.483	0.000
2	All modern software for accounting, finance and internal audit operations are provided by the government	2.865	3.652	0.788	0.000
3	Accounting, finance and internal audit units staff in the state have requisite ICT knowledge	2.856	3.568	0.712	0.000
4	The internet connectivity at the accounting, finance and internal audit units are satisfactory	3.136	3.288	0.153	0.270

Source: Author's Computation, 2020

Results in Table 4.4 reveal that there is a significant improvement in the professional development activities of the staff as the mean rating increases from 2.958 to 3.313 with a p-value of 0.006. The results further reveal that there is a significant increase in the depth of ICT knowledge of qualified staff in the departments as the mean rating increases from 2.974 to 3.322 with a p-value of 0.004. Similarly, the respondents perceived that Accounting, Finance and internal audit unit staff get sufficient budget to successfully carry on their duty as the mean rating increases from 2.771 to 3.509.

Table 4.4: T-test Results on Professional Competence in the Public Sector

S/N		**Before**	**After**	**Diff**	**Sig**
1	Accounting and other related officers undertake continuous professional development activities	2.958	3.313	0.356	0.006
2	Accounting, Finance and internal audit units have appropriately qualified staff	2.974	3.322	0.347	0.004
3	Accounting, Finance and internal audit units' staff get sufficient budget to successfully carry on their duty.	2.771	3.509	0.738	0.000

Source: Author's Computation, 2020

Interpretation of Regression Results

In order to examine the impact of the IPSAS and the two control variables, the study first test for the existence of multicollinearity among the explanatory variables using the Variance Inflation Factor (VIF). The results of the VIF presented in Table 4.5 revealed that financial expertise has a VIF of 1.353, IPSAS has a VIF of 1.309 while ICT capacity has a VIF of 1.252 and the mean VIF is 1.305. Since the estimated VIF for any of the explanatory variables is close to the threshold of 10, the problem of multicollinearity is not envisaged in the model of this study.

Table 4.5 Variance inflation factor

	VIF	1/VIF
FEXP	1.353	.739
IPSAS	1.309	.764
ICT	1.252	.799
Mean VIF	1.305	.

Source: Author's Computation, 2020

Impact of IPSAS Adoption on Budget Credibility.

Table 4.6: The Estimated Impact of IPSAS Adoption on Budget Credibility

Dependent Variable: BCI				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
IPSAS	0.078684	0.017485	4.500085	0.0000
ICT	0.180188	0.065085	2.768515	0.0061
FEXP	0.135436	0.057093	2.372187	0.0185
C	0.387472	0.053364	7.260961	0.0000
R-squared	0.286750	Mean dependent var		0.628107
Adjusted R-squared	0.277527	S.D. dependent var		0.117604
S.E. of regression	0.099962	Akaike info criterion		-1.751256
Sum squared resid	2.318221	Schwarz criterion		-1.692547
Log-likelihood	210.6482	Hannan-Quinn criter.		-1.727590
F-statistic	31.09050	Durbin-Watson stat		2.111762
Prob(F-statistic)	0.000000	Wald F-statistic		18.78374
Prob(Wald F-statistic)	0.000000			

Source: Author's Computation, 2020

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The estimated impact of IPSAS adoption on budget credibility in the public sector is presented in Table 4.6. The results in the table revealed that IPSAS adoption has a significant positive impact on budget credibility in the public sector given its estimated coefficient and p-value of 0.0787 and 0.000 respectively. Specifically, the results indicate that adoption of IPSAS brings about an increase in budget credibility by about 7.87 percentage points.

For the control variables, the estimated coefficient and p-value of 0.1802 and 0.0061 respectively indicate that ICT competence has a significant positive effect on budget credibility in the public sector. By implication, improvement in the ICT capacity in the departments by 1 percent is associated with an increase in the budget credibility by 0.1802 percentage point. Similarly, the results show that staff financial expertise has a positive effect which is significant at a 5 percent level of significance given the respective coefficient and p-value of 0.1354 and 0.0185 respectively. This result is also in line with the Apriori expectation of the study and it implies that an increase in the staff financial expertise by 1 percent will increase the credibility of the budget by 0.13 percentage points and vice versa

The post estimation diagnostic test reveals an estimated Durbin Watson statistics of 2.11 which indicates that the model does not suffer from the first-order serial correlation since the Durbin Watson statistics is close to 2. In addition, the study tested for the presence of heteroscedasticity using the Breusch-Pagan-Godfrey test. The Results with an F-statistic p-value of 0.002 indicates that the null hypothesis of homoscedasticity of the error term is rejected and it is concluded that the model is characterized with heteroscedasticity. The study corrected the problem by running the regression with robust standard error.

Table 4.7: Breusch-Pagan-Godfrey Heteroskedasticity Test Results for Model 1

F-statistic	7.020437	Prob. F(3,232)	0.0002
Obs*R-squared	19.64136	Prob. Chi-Square(3)	0.0002
Scaled explained SS	23.01589	Prob. Chi-Square(3)	0.0000

Source: Author's Computation, 2020

Discussion of Findings

The study is set up to examine the impact of IPSAS adoption on budget credibility in the public sector. The study was able to establish a significant positive effect of IPSAS adoption on budget credibility in the public sector. This may be linked with the ability of IPSAS to ensure that revenue and expenditure from all sources are captured in the budget. The finding here is supported by the finding of Nkwagu et al. (2016) who reported that adoption of IPSAS paves way for effective budget implementation in a sample of Nigerian south-eastern states public sector accountants and internal auditors. A similar finding was reported by Ubong and Dominic (2018) who revealed that IPSAS adoption will result in efficient budget allocation, enhanced budget performance and a halt to corrupt tendencies of budget officers.

The results also indicate that staff expertise and the agencies ICT capability are essential for budget credibility. This justifies the introduction of the staff expertise and ICT competence as the control variables in the study. This shows that the adoption of IPSAS alone cannot achieve budget credibility in the public sector but must be complemented with improved staff expertise and ICT competence.

5.0 CONCLUSION AND RECOMMENDATIONS

The study found that IPSAS has a positive and significant effect on budget credibility in Osun state. In addition, the study observed that the effect of IPSAS adoption on budget credibility is moderated by the staff financial expertise and ICT capacity of the various departments. The study implies that the objectives of IPSAS adoption are gradually being realized in Nigeria, though there is a need for concurrent improvement in the accounting and related staff training as well as improved internet penetration and other ICT capacities in the state internal audit, accounting and finance department.

In line with the findings above, this study recommended that relevant stakeholders should provide enabling environment for the proper functioning of IPSAS in government departments and agencies to realise the full potential of the accounting standards. These may include the training and re-training of the staff of the agencies on technicality behind the IPSAS as well as invest more in ICT facilities in Ministries, Departments and Agencies (MDAs) work environment.

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T-SHAPED HUMAN RESOURCE AS KNOWLEDGE MANAGEMENT INFRASTRUCTURE CAPABILITY FOR COMPETITIVE ADVANTAGE

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Abstract

This study examined the effect of human resources as an enabler or knowledge management infrastructure capability likely to affect firms' competitive advantage in the Nigerian food, beverage and tobacco manufacturing industry. Specifically, the study sought to determine the influence of human resources (people with T-shaped skills) on the competitive advantage of firms; as well as the relationship between human resources and the knowledge management process capabilities. The study adopted a descriptive survey research design, with the tool for data collection being a standardized self-administered questionnaire. The management staff of the selected manufacturing firms formed the target population for the study and were stratified into lower, middle and top management. Two hundred and thirty-four management staff were sampled. Frequencies, and percentages, were used for descriptive analyses, while Pearson product-moment correlation analyses and regression were used to test the hypotheses. The study showed that human resources (people with T-shaped skills) as KM infrastructure capability significantly affected competitive advantage. The findings also indicate that human resource knowledge management infrastructure capability and the knowledge management process capabilities are statistically and significantly related. The study recommends that manufacturing firms wishing to have and sustain competitive advantage (CA), should endeavour to engage more employees with T-shaped skills and do all to retain T-shaped skilled workers as their exit may imply a loss of an aspect of CA.

Keywords: Competitive advantage, T-shaped human resources, capability, knowledge management.

INTRODUCTION

The ability of an organization to adapt to an uncertain business environment due to current economic and social drifts, determine their survival, success or otherwise. The rising complexity and its attendant challenges highlight the need for increased competitiveness by businesses through improving human resources potentials and skills to meet customer needs and expectations, businesses, therefore, focus majorly on attaining competitive advantage likely to enhance their performance relative to referent others; so, they occupy themselves in the struggle of trying to distinguish themselves from relentless competitors (Daghfous, 2003). To turn out as a leader in the market and gain, firms require building dynamic capabilities (Schiavone, 2011). Given this, they focus basically on improving two relevant factors for competitiveness – intellectual capital and innovation (Costa & Ramos, 2015). Sustaining competitive advantage for Wang et al. (2011) will depend on a combination of qualities and resources which allows a firm to do better than its opponents like access to traditional resources - Land, Labour, financial capital and highly skilled and trained human resources. Nevertheless, the resource and knowledge-based views of the firm highlight's resources and capabilities of intangible attributes as against the traditional resources as the critical success factors for firms. Hence, according to Dumay & Garanina (2013), creating value in the present-day global economy is driven by intangible assets.

Skilled human resources or knowledge workers, customers, suppliers and other stakeholders fall in the categories of intellectual capital classified under human capital, structural capital, and relational capital. Academics and administrators all realize the significance of knowledge to organizations in achieving and sustaining competitive advantage (Ciganek et al., 2008). Opinions have it that actions taken within the framework of human resources management have a significant influence on the effectiveness of knowledge management (Figurska (2009). As averred by Cheng and Huang (2007), knowledge management (KM) assists in creating value through actively applying the proficiency or skills provided in individual minds. That is to say, that effective human resource management practices especially as it affects the hiring of workers will play a significant role in successfully managing the knowledge of an organization, and in turn impact the competitiveness of the organization. This supports the stance of Kumar (2016) which states that the current knowledge revolution has far-reaching implications on the attainment of organizational objectives. Hence, a firm's competitive advantage may be largely determined by how well it manages the knowledge deposited in its human capital.

Against this backdrop, human resource (employees) of an organization endowed with factors such as cognitive style, self-efficacy, high experience, T-shaped skills, etc reflects competency and capability for managing knowledge to achieve organizational competitive advantage. In other words, these abilities will reflect in the organization's knowledge management processes. This study's interest is on the t-shaped skills of employees. The T-shaped employees are considered as having skills to retain both a good knowledge of their discipline and that of others to function as a team (Hamdi et al. 2016). That is to say, that they can expand their ability across several areas and with complete thinking skills (Lee & Choi, 2003). The challenge of recruiting, engaging and retaining the knowledge assets of organizations e.g., the T-shaped human resource skills is not peculiar to Nigeria. Though, it is a bit of a challenge given the assumption that somebody needs to know someone high and mighty in the society to get employed or the "man no man" syndrome as expressed in the local parlance.

With this in the background, there is a need to establish that the firms under study engage people with t-shaped skills and that the skills affect their competitive advantage. This is large because most studies in this area have been carried out in advanced developed countries (Alaneme, 2017); the need therefore for this study in this clime, is a welcome development. Therefore, this study will examine T-shaped human resource as KM infrastructure capability, test the effect of human resource KM infrastructure capability on innovation and market share of the food, beverage and tobacco (FOBTOB) firms under study; as well as the relationship between human resource infrastructure capability and knowledge management processes of acquisition, conversion, application and protection.

THEORETICAL FRAMEWORK/LITERATURE REVIEW

The study is premised on both the knowledge-based view (KBV) and dynamic capability view (DCV) theories. The view of knowledge-base has its foundation from the resource-based theory of the firm which identified knowledge as a resource. However, the KBV built upon and extended the resource-based theory such that the most treasured resource of the firm is 'knowledge' going by Curado (2006). As averred by Hansen et al. (1999); Takeuchi (2013), the knowledge deposited in the human resource allow organizations to improve their typical competencies and realize their innovation opportunities. The Dynamic Capability View advocated by Teece, Pisano, and Shuen (1997) is part of the efficiency-based approach that identifies the scopes of definite capabilities of the firm that can be sources of advantage, and how to combine skills with resources, and to develop, deploy, and protect the resources. DCV emphasizes both existing internal and external organization-specific competencies used in addressing dynamic environments (Teece, 2007).

Knowledge management (KM): This is a growing field of practice and research which appeal to academics and professionals (Bontis & Serenko, 2009). Businesses function in a very dynamic and information-loaded environment which increases the need for knowledge to make sense of large numbers of different information and data (Malafsky, 2003). Organizational development and competitiveness can be promoted by high levels of knowledge management (Echeverry et al. 2019). For Mathis and Jackson (2010), KM is an attempt to get the right knowledge to the right people and at the right time so that it can be shared and put into action. Therefore, knowledge management (KM) deals with the process of managing organizations in terms of acquiring, converting, applying and protecting knowledge given the right infrastructures in place to achieve organizational objectives.

Various studies have analysed the effects of knowledge management on financial performance and diverse organizational products or outcomes (Kavali et al., 2021). These outcomes may include improved performance efficiency; effectiveness; competitive advantage of which greater innovation ability and; larger market share. As argued by Gold, Malhotra and Segar, (2001), every organization may not be similarly disposed to introduce and keep their KM initiatives, therefore they differ in the attainment of their objectives. It then becomes crucial for organizations to recognize and locate the prerequisites to realizing the desired objectives. These prerequisites according to Leonard Barton (1998) among others, are referred to as capabilities.

Gold et al. (2001) examined an empirically effective knowledge management model from the perspective of organizational capabilities. This perspective suggests that a KM infrastructure consisting of technology, structure, and culture along with KM process architecture of acquisition, conversion, application, and protection are essential organizational capabilities or preconditions for effective knowledge management. Hence, KM capabilities are organizational factors, routines, (infrastructures) and processes that enable an organization to efficiently and effectively manage its knowledge to achieve competitive advantage.

KM Infrastructure Capabilities: KM infrastructure capabilities refer to organizational resources or factors which support or enable the process of managing knowledge. KM infrastructure according to Krogh et al. (2001) is "organizational mechanisms to create knowledge constantly and intentionally in the organization". These infrastructural capabilities include cultural, structural, and technological abilities (Gold et al., 2001). However, other studies have included human resources (people with T-shaped skills) as part of the infrastructures to realizing knowledge management initiatives (Lee & Choi, 2003). Thus, human resource infrastructure capability is considered in this study.

KM Process Capabilities: these are the actual procedure or practices for creating, transferring, using and protecting knowledge. They are interconnected or intertwined groups of activities (Migdadi, 2005) like creation, distribution, storage/retrieval and usage (Alavi & Leidner, 2001; Beckman, 1999). Knowledge processes signify the basic actions of knowledge whereas knowledge infrastructure provides the enablers necessary for the organization to increase the efficiency of knowledge processes (Lee & Choi, 2003). Lee and Choi (2003) highlighted that knowledge management consists of processes to manage knowledge, as well as enablers (capabilities) to aid the processes. Their study emphasized organizational culture, structure, information technology and people as knowledge management enablers while looking at the knowledge-sharing process through socialization, externalization, combination and internalization (SECI) model.

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Some studies identified knowledge capabilities and processes as both antecedents of organizational performance (Becerra-Fernandez & Sabherwal, 2001). Other studies recognized knowledge infrastructure capabilities as prerequisites for knowledge processes (Hansen, 1999; Szulanski, 1996). In essence, diverse knowledge management capabilities of infrastructure and processes have been examined in literature (Gold et al. 2001; Lee & Choi, 2003; Zheng, Yang & McLean 2010; Theriou, Maditinos & Theriou, 2011; Emadzade, Mashayekhi & Abdar 2012; Alaneme, 2017). Among the various knowledge management process capabilities, knowledge acquisition, application, conversion, and protection, form the basis of this study.

Knowledge Acquisition: This is the method by which firms generate knowledge resources across useful boundaries. It involves the process of knowledge creation from both inside or outside of the organizations (Cho & Korte, 2014). The activities are enabled through collaboration, feedback, innovation, thinking, and evaluation. Knowledge acquisition is seen as a "likely capacity" since it mirrors a firm's ability to create an advantage using its knowledge, though it does not assure that knowledge is used effectively (Cohen & Levinthal, 1990).

Knowledge Conversion: A firm's ability to distribute knowledge resources across functional lines to ensure basic change and or improvement in business processes is called knowledge conversion. This can be attained by integrating, coordinating, synthesizing, distributing, combining, refining, and restructuring knowledge.

Knowledge Application: Simply put, knowledge application is a process concerned with the real use of knowledge (Gold *et al*, 2001). That is, talking about the extent to which the organization uses its knowledge resources across the functional area. It is assumed that not many studies have looked at knowledge application but rather assume its existence (Gold et al.,2001). For instance, Nonaka and Takeuchi (1995) discussed the ability of an organization to create knowledge but were silent about its application.

Knowledge Protection: These are methods intended to protect knowledge in an organization from theft, illegal or inappropriate use or misuse (Gold *et al*, 2001). They are security-oriented so that a firm's competitive advantage can be maintained if there are mechanisms put in place to secure and protect knowledge (Liebskind, 1996). The angle of knowledge protection just like the knowledge application process has not received adequate attention as many assume that protection can come in form of patents, trademarks, copyright laws etc. Nevertheless, not all knowledge can be explained in terms of property laws and property rights (Liebskind, 1996). Knowledge protection should not be abandon or overlooked even though protecting knowledge may be innately difficult.

T-Shaped Human Resource: Human resource management (HRM) and Human resources seem to have to a large extent replaced the word ‘personnel management as a depiction of the processes involved in managing people in organizations (Aziri, Veseli, & Ibraimi, 2013). Human Resource (HR) and its relationship with KM stems from the fact that knowledge is dependent on people and that HRM issues such as recruitment, selection, compensation, training and development as well as the creation of a learning culture are important for managing knowledge within firms (Edvardsson, 2008). People are at the centre of creating organizational knowledge and also sharing knowledge (Ndlela & Toit, 2001). A key factor in the expansion of knowledge management today is the rediscovery that employees have skills and knowledge that are domiciled within them and not available or captured by the organization (Edvardsson, 2008). Hence, this personalized or tacit knowledge is of value, rare, inimitable, and organized within workers, and can only be made known when there is an interaction with other workers or training to teach others. Therefore, hiring and managing people who are willing to create and share knowledge is very vital. Hence, organizations need to watch out for people capable of providing a competitive advantage through their skills and competencies. The skills talked about most times are usually the T-shaped skill.

T-shaped skills imply both the deep (stem of the "T") and broad (the cross of the "T") to allow holders to discover the interconnection between their knowledge field specifically, and application of such knowledge in several other fields (Leonard, 1995). These skills alive in employees are often connected with the main ability (Iansiti, 1993; Leonard-Baton, 1995). The skills enable distinct specialists to have collaborative conversations with one another (Madhavan and Grover, 1998). Workers with T-shaped skills can enlarge their competencies across numerous practice areas, and hence create new knowledge given that they understand how their division of knowledge interacts with other divisions. Cotter (2015) in a blog on T-Shaped skills opine that employees with these skills, combined with the ability to network, manage projects, and communicate effectively, offer their organizations a distinct competitive advantage. In this study, human resource with T-shaped skill is examined.

Competitive Advantage (CA): This is defined as the advantage an organization has over opponents in attracting consumers, pushing out new products and protecting against competitive forces (Thompson & Strickland, 2001). CA can result either from implementing a value-creating plan that cannot be employed by current or prospective competitors; or through the execution of superior strategy which is also being employed by competitors. The implication is that only resources and capabilities that are valuable, uncommon, poorly imitable and non-substitutable (Barney, 1991) qualify as the firm's unique or core competencies (Prahalad & Hamel, 1990) which brings about lasting competitive advantage. A firm's resources consist of all assets both tangible and intangible, human and non-human that are possessed or controlled by the firm which permits it to devise and apply value-enhancing strategies (Wernerfelt, 1984).

Intangible resources are more likely than tangible resources to generate competitive advantage (Hitt, Bierman, Shimizu & Kochhar, 2001). Specifically, intangible firm-specific resources such as knowledge permit firms to add up value to incoming factors of production (Hitt *et al*., 2001) and this represents a competitive advantage for a firm. Such advantage is developed over time and cannot easily be imitated. Companies can create sustained competitive advantage through knowledge in two ways - through spreading "tacit knowledge" which is internal to the firm and would probably be too difficult for other competitors to replicate and secondly, for a firm to strive to generate superior knowledge management abilities which can assist ongoing innovation (Lubit, 2001) and also create increased market share.

One critical factor in the success or survival of many organizations is being innovative (Nonaka & Takeuchi, 1995). Ahmed (1998), states that most organizations highlight the usefulness of innovations, attempt to innovate, yet only very few prosper. Firms, in reality, get frightened by innovation because of its link to risk; only organizations that can deal carefully with risk becomes innovative. Hence, innovation entails the deployment of concepts for the improvement of new products and services, and the advancement of existing products and services (Aalbers, 2012). Numerous studies on innovation show that increased R&D activities lead to innovative products which assist firms to attain competitive advantages and gain market shares (Freeman & Soete, 1997). Innovative processes call for people who can co-operate and join their expertise (Van de Ven, 1986); so individual creativity is essential to a firm and is the starting point for being innovative. Sustainable CA as stated by Ologbo & Nor (2015) is an outcome of innovation while innovation itself could be derived from the four processes of knowledge management which include knowledge discovery, knowledge capture, knowledge sharing, and knowledge application as processes of knowledge management that could spur firm's innovation abilities.

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Market share (MS) can be defined as the percentage of a market accounted for by a specific entity and it is an advantageous way of measuring business competitiveness since it is less dependent upon macro-environmental variables such as the state of the economy or changes in tax policy (Gregory, 2005). MS, on the other hand, is a way of measuring the CA of a firm. The concept of market share has its bases from competitor-oriented objectives as stated by Armstrong & Green (2007) and is considered an essential generic aspect of competitive advantage since it determines the ability of a firm to have a share of the market different from its competitors. In effect, market share is said to be a key indicator of market competitiveness; that is, how well a firm is doing against competitors.

Human Resource, Knowledge Management and Competitive Advantage

Gupta, Iyer & Aronson (2000) aver that the only competitive advantage organizations will have in the 21st century is what they know and how they use what they know. Common sources of CA include ownership of assets or position; access to distribution and supply; as well as expertise – knowledge, competence, and capability – in business operations (Rose, Abdullah, and Ismad (2010). To remain competitive, companies need to make the most of their intellectual assets particularly on the intellectual capacity of their workers rather than their technological infrastructure (Hung, 1998). This is not to say that technology is unnecessary but rather because technology is ever-changing and the higher the uncertainty, the need for organizations to rely more on their T-shaped workers (Hamdi et al., 2016).

Human resource management essentially in the hiring of employees in this 21st century should be focussed on employing people who possess a mastery of core-content knowledge in a specific field, as well as well-developed professional abilities and interpersonal competencies because that is what employers are emphasizing. The role of human resource management, therefore, is to ensure that the organization has the intellectual capital it needs, which in essence supports knowledge management for competitive advantage. Individual creativity is central to an organization and is the beginning of innovativeness. Innovation and gaining of market share as measures of competitive advantage demand knowledgeable people who are willing and able to collaborate and join their expertise (Van de Ven, 1986). Hence, human resources are considered as key infrastructure to managing knowledge because knowledge is domiciled in the heads of people (tacit), and people need to be encouraged to share their knowledge with others to make their knowledge explicit. Tan and Fakhrul (2011) found in their studies that T-Shaped skill is positively related to the knowledge creation process. Whereas, Abbas et al. (2019) aver that the KM process (i.e., knowledge creation, acquisition, sharing, and implementation) affects the economic aspects of corporate sustainability.

Several studies on KM and human resource or intellectual capital have shown different results. For instance, the study of Prieto and Revilla (2006) shows that there is a statistically significant relationship between human resource efficiency and financial performance. The results also indicate that human resource development is one of the very crucial factors when it comes to financial success. Hence, organizations should concentrate on human capital or human resources. Knowledge management as well as improvements in the performance of intellectual capital gives the best of financial values (Josh et al., 2013). So, it can be argued that there is a nexus between intellectual capital and financial performance (Kianto et al., 2013).

This study is interested in examining human resources (people with T-shaped skills) as an infrastructure capability that aids the management of knowledge in an organization for competitive advantage. It will additionally determine the relationship between T-shaped human resources and the knowledge processes in the achievement of competitive advantage. Hence, the following hypotheses are formulated to give the study direction.

H_{0i}: Human resource KM infrastructure does not significantly influence innovation.

H_{0ii}: There is no significant influence of Human Resource KM Infrastructure on market share.

H_{0iii}: Human resource infrastructure capability has no significant relationship with KM process capabilities.

METHODOLOGY

The study adopts cross-sectional survey research. Cross-sectional in the sense that it involves analysing data collected from a population at one specific point in time which does not indicate the sequence of events before, during or after the outcome through the survey. The study area is Lagos State, Nigeria. The target population comprises the management staff of firms in the food, beverage and tobacco (FOBTOB) manufacturing industry. According to the NBS (2018) data, the FOBTOB sub-sector is one of the growing manufacturing sectors after the recession, having recorded 2.18% in Q4 of 2017 from 0.58% in Q3 2017 and -2.65% in Q4 of 2016. A multi-stage sampling technique was applied in this study. First, the geographically dispersed FOBTOB organizations were grouped into clusters of Lagos and others because a majority of the firms were domiciled in Lagos. The Lagos cluster was selected using a simple random sampling technique. Of the nineteen (19) firms based in Lagos, six (6) were selected using once more the simple random sampling technique. The six organizations are quoted firms in the Nigerian stock exchange and signify about 31.57% of the population which is by far a good representation going by what De Vaus (1996) states. Using stratified sampling technique, and Yamane (1967) formula, a sample size of three hundred and twenty-four staff comprising top, middle and lower-level managerial staff were selected. Data were collected through a structured self-administered questionnaire. The item measures for human resources (people with T-shaped skills) include among others specialism on own job and that of others, as well as understanding one's task and that of others. This was adapted from Lee and Choi (2003); while item measures for process capabilities were adapted from Gold et al., (2001), and includes acquisition, conversion, application and protection. Competitive Advantage was measured using innovativeness and market position. The items of measure were adapted from Wang & Ahmed (2004) 29 item instrument.

RESULTS, PRESENTATIONS AND DISCUSSIONS

Descriptive Statistics of Variables: The study was analyzed using percentages, mean scores, and standard deviation. One sample t-test was run to confirm the difference in mean of the variables using the threshold '4'; while the scale ranged from 1= Strongly Disagree, to 7 = Strongly Agree. Mean scores below '4' implies a Strongly Disagree, Disagree or Slightly disagree responses, while mean scores above '4' threshold imply Slightly Agree, Agree or Strongly Agree response. Presentation and analyses were done following the research objectives and hypotheses.

A look at Table 1 indicates that about 76% of respondents agree that their employees understand their tasks and that of others, whereas about 83.5% and 74.7% respectively agree that their human resources are specialists in their part and can make suggestions about others tasks. Furthermore, the mean scores for all five items exceeded the '4' point threshold of reference. This suggests that respondents agreed to the fact that most employees or members of their organizations are specialists in their field; who not only understand their jobs but that of others too, and can make suggestions about others tasks. They could therefore be termed to have the T-shaped skill.

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Table 1: Examining T-Shaped Human Resource as KM Infrastructure Capability

	Scale Level								
T-shaped skill	1	2	3	4	5	6	7	Mean	Std. Dev
Understands tasks as well as others' tasks	.9	3.0	9.4	10.7	36.5	19.3	20.2	5.176	1.367
Make suggestions about others' task	.9	4.3	7.7	12.4	39.5	18.5	16.7	5.077	1.346
Communicate well with their department members and other department members	.4	3.4	6.4	9.9	27.0	23.2	29.6	5.476	1.390
Specialists in their own part	1.3	1.7	1.7	11.7	16.9	35.9	30.7	5.719	1.276
Perform own task effectively irrespective of environmental changes	3.4	3.0	7.3	23.6	20.2	17.6	24.9	5.064	1.589

Source: Author's Computation 2019

The analysis in Table 2 is the test statistic strengthening the results of Table 1 as it showed the calculated *t* as 17.272 and p-value of 0.000 which is less than 0.05 significant level. Hence, human resource as a knowledge infrastructure capability has an acceptable fit, and a statistically significant difference in mean from the population mean

Table 2: One-Sample Test confirming the mean difference in T-shaped Human Resource

	Test Value = 4								
	N	Mean	Std. Deviation	Std. Error Mean	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Human Resource	234	5.281	1.134	.07415	17.272	233	.000	1.28077	1.1347	1.4269

Source: Author's computation 2019

Influence of T-Shaped Human Resource KM Infrastructure Capability on Innovation

Table 3: Model Summary of Human Resource on Innovation

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R	R square	F	Sig.
	B	Standard Error	Beta						
	3.323	.247		13.479	.000				
HR capability	.327	.046	.426	7.162	.000	.426[a]	.181	51.294	.000[b]

a. Predictor: (Constant), Human Resource
b. Dependent Variable: Innovation

Source: Author's computation 2019

Table 3 indicates the effect of T-shaped human resource KM capability on innovation. The correlation coefficient of 0.426 indicates a positive relationship between human resources and innovation. The R-Squared statistic with value .181 implies that about 18.1% of the total variation in the measure of innovation is explained by the variations in T-shaped human resource capability. The results also showed that there is a statistically significant relationship between T-shaped human resource capability and innovation.

Influence of T-Shaped Human Resource KM Infrastructure Capability on Market Share

Table 4: Model summary of Human resource on market share

Model	Unstandardized coefficients		Standardized Coefficients	t	Sig.	R	R square	F	Sig.
	B	Standard Error	Beta						
	2.952	.265		11.137	.000				
HR capability	.468	.049	.531	9.534	.000	.531[a]	.281	90.891	.000[b]
a. Predictors: (Constant), Human Resource b. Dependent Variable: Market share									

Source: Author's computation 2019

Table 4 indicates linear regression calculated to predict market share from T-shaped human resource KM Capability. A cursory look at the results demonstrates a significant positive fit as the model depicts ($F = 90.891$, $p < 0.05$), with an R of .531 and R^2 of .281. This implies that about 28.1% of the variation in market share is explained by the variations in human resources. Hence, there is a statistically significant relationship existing between Market Share and T-shaped Human Resource KM Infrastructure Capability.

Relationship between Human Resource KM Infrastructure capability and KM Process Capabilities

Table 5 shows the correlation between human resource knowledge management capability and the knowledge management process capabilities of acquisition, conversion, application and protection. From the analysis, it is obvious that T-shaped human resource KM capability is highly and significantly correlated to the KM process capabilities, especially the application process (.455), followed by the conversion or transfer process (.435). This is an indication that human resource is very vital to the usage and transfer of knowledge within organizations.

Table 5: Model summary of Human resource relationship with knowledge processes

		Acquisition process	**Conversion Process**	**Application Process**	**Protection Process**
Human Resource	Pearson Correlation	.391**	.435**	.455**	.418**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	234	234	234	234
**. Correlation is significant at the 0.01 level (2-tailed).					
*. Correlation is significant at the 0.05 level (2-tailed).					

Source: Author's computation 2019

Effect of Human Resources KM infrastructure capability on Competitive Advantage

Regressing competitive advantage (innovation and market share combined) on T-shaped human resources, Table 6 shows the correlation coefficient R of 0.585 which indicates a high positive relationship between T-shaped human resource capability and competitive advantage. The R-Squared statistic with value .342 implies that about 34.2% of the total variation in the measure of competitive advantage is explained by the variations in T-shaped human resource capability. Also, the results indicate that there is a statistically significant relationship between T-shaped human resource capability and competitive advantage at $F=120.567$. $P < 0.05$.

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Table 6: Model Summary of Human Resource on Competitive Advantage

Model	Unstandardized coefficients		Standardized Coefficients	t	Sig.	R	R square	F	Sig. (F)
	B	Standard Error	Beta						
	3.137	.195		16.050	.000				
HR capability	.397	.036	.585	10.980	.000	.585[a]	.342	120.567	.000[a]
a. Predictors: (Constant), Human Resource b. Dependent Variable: Competitive Advantage									

Source: Author's computation 2019

DISCUSSION OF FINDINGS

The indication from the study suggests that most of the organizations hired and retained people (Human resource) with T-shaped skills, who were not just experts in their field, but also understood their jobs and those of others as attested by the results (Mean = 5.2808; t = 17.272; $p < 0.05$). This finding supports the work of Leonard-Barton (1995) which submits that T-shaped skill is what effective KM requires. It also suggests that the firms under study may have shunned the idea of godfathers in the hiring of employees, but rather went for the best-qualified hands and the right people. Since knowledge is domiciled with the individuals, the wealth of knowledge inside and across the departments through T-shaped skill workers is likely to produce the required success for the organization if such people are inspired and stimulated to give their best in sharing and applying knowledge. On innovation and human resources, the findings tally with the theoretical arguments of Leonard and Sensiper (1998) which states that the social interaction between individuals is necessary to the process of innovation; also, with Vieites and Carlo (2011) empirical study which shows that human resources positively influence research and development (R&D) activities and in turn have a positive effect on innovation.

CONCLUSION/RECOMMENDATION

The results on human resources and the knowledge processes showed that on an individual basis, T-shaped human resource is highly and positively related to all the knowledge processes of acquisition, conversion, application and protection. In a joint effect, the results revealed that human resource relates more with the knowledge application and conversion processes, followed by the protection processes. In addition, the findings indicate that human resource influences competitive advantage (innovation and market share) as shown by the outcome of the results. Organizations should do all to retain their T-shaped skilled workers as their exit may imply a loss of an aspect of their CA. Additionally, for organizations to continually sustain competitive advantage, it is imperative to hire T-shaped skilled workers who will be willing to apply their knowledge in their field, and also help across other fields

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THE LEADERSHIP STYLES AND CORPORATE PERFORMANCE DURING DEBT CRISIS IN NIGERIA

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ABSTRACT

This study examined the relationship between leadership styles and corporate performance. The leadership style that produces an excellent result in good times may be inapplicable in difficult times. Recently, medium to large scale non-listed companies in Nigeria are facing a huge debt crisis. This burning issue of toxic debt among non-listed companies in the country provides a rare opportunity for this study. A descriptive research design involving the questionnaire survey technique was explored. The sample consists of 80 non-listed companies drawn from the list of 98 debtors of the Asset Management Corporation of Nigeria (AMCON). Copies of a structured questionnaire were administered to 240 members of the top management team in the sampled companies. The study found 204 copies of the questionnaire valid for subsequent data analysis. Descriptive statistics include means and standard deviations while multiple regression analysis was explored to test the hypotheses. Findings revealed a moderate financial and non-financial performance among the sampled companies. Furthermore, findings revealed a positive significant relationship between autocratic leadership style and corporate performance. The study concluded that an autocratic leadership style is more effective in enhancing corporate performance than a democratic and Laissez-faire leadership style when a company is facing a debt crisis.

Keywords: Corporate performance, debt crisis, leadership styles, non-listed companies.

JEL Classifications: G30, L22, M41

1.0 INTRODUCTION

Leadership could be described as the way by which a leader promotes teamwork among subordinates towards achieving organizational goals. It is one of the key determinants associated with the success or failure of any organization (Terry, 2010). Leaders create values and visions for organizations. Leadership could be viewed as a tool for attaining corporate goals. A common goal of all private companies is to make a profit. So, the entrepreneur or the appointed manager should harness, organize, and allocate the resources of the organization efficiently to maximize profit. The corporate activities should be well-coordinated and the employees should be adequately motivated to contribute to the attainment of corporate goals. The leadership challenge in listed private companies may be minimal compared to that of non-listed companies. Listed companies are usually large and are highly capitalized. Sufficient resources are available to them to tap opportunities for economies of scale. Non-listed companies, on the other hand, have less financial resources and may need to resort to loan facilities at a high cost. Therefore, there is a need for more effective leadership that can explore opportunities in good times, promote business growth, sustain business development, and withstand the time of crisis. Mkheimer (2018) observed that a direct and cause-effect relationship exists between leadership styles and business success. However, the leadership style that produces an excellent result in good times may be inapplicable in difficult times.

Recently, medium to large scale non-listed companies in Nigeria are facing a huge debt crisis. The list of 100 chronic debtors released by the Asset Management Corporation of Nigeria (AMCON) contained 98 non-listed companies (AMCON, 2018). Each of these non-listed companies is battling with a debt of ₦5 billion or above. AMCON is the statutory corporate body set up to acquire and recover non-performing loans in the Nigerian financial system. There has been a series of court actions on the recovery of the debt. AMCON has impounded some assets of some of these debtors. Local oil and gas companies top the list of these debtors. According to AMCON (2018), Seawolf, Capital Oil and Gas and Tanzila Petroleum Limited owed ₦160.09 billion, ₦104.80 billion and ₦49.23 billion respectively, as of December 2018. The inability to offset these debts brings to question the efficiency of the financial and non-financial performance of the enterprises as well as the leadership styles being explored in these organizations. From the financial service sector, the insider loan crisis in the First Bank of Nigeria (FBN) readily comes to mind. Recently, the Central Bank of Nigeria (the CBN) has replaced the directors and the management team of the First Bank of Nigeria to facilitate the insider loan recovery and to write off the nonperforming loans against the annual profits of the bank. Therefore, research efforts should be directed to the styles of leadership that are suitable for companies in financial crisis. Previous studies majorly focused on leadership styles and organization performance in good times. The recent economic reality shows that more companies, especially non-listed companies are facing difficult times. Hence, the current study examined the relationship between leadership styles and corporate performance in non-listed companies that are experiencing a debt crisis in Nigeria.

2.0 LITERATURE REVIEW

Leadership style could be described as a leader's characteristic behaviour when managing, directing, guiding, and motivating a group of people. Leadership styles can be classified into autocratic, democratic, and Laissez-faire (Lewin, Lippit & White, 1939). Autocratic leaders make decisions independently with little or no input from subordinates. The autocratic approach is good for rapid decisive actions but may create dysfunctional environments. Democratic leaders allow subordinates to participate in decision-making but retain the right to take the final decision and thereby enjoy their cooperation and loyalty. Laissez-faire leaders leave decision-making to the subordinates. This style of leadership may be useful where other team members are made up of highly qualified experts but may lead to poorly defined roles and lack of motivation. A uniform opinion among the researchers' tilts towards situational leadership theory which posits that the choice of leadership style depends more on the circumstances peculiar to the organization (Meier, 2016). Hence, this study applied the situational leadership theory to identify the best leadership style to be adopted in non-listed companies that are experiencing a debt crisis in Nigeria.

Studies, across both developed and developing nations, have examined the empirical links between leadership styles and organizational performance (Abasilim, 2017; Ebrahim, 2018; Ibrahim & Daniel, 2019; Milolosa, 2019). Milolosa (2019) investigated the impact of the leadership style on the financial performance of a sample of small scale enterprises in Croatia through questionnaire survey methodology. The study found that financial performance is associated with a democratic leadership style. Furthermore, findings revealed that a mix of autocratic, democratic, and Laissez-faire leadership styles is associated with the financial performance of enterprises in the stagnant phase while a significant positive relationship was established between democratic/Laissez-faire leadership styles and financial performance in enterprises that are exposed to international markets. Flanigan, Stewardson, Dew, Flag-Palmer, and Reeve (2013), in a study from the United States (the US), documented a significant positive impact of transformational leadership style on corporate performance but recorded a significant negative effect of transactional leadership style.

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In the Middle East, Ebrahim (2018) appraised the impact of leadership styles on the organizational performance of a sample of some selected companies in the United Arab Emirates (the UAE). The study used a copy of a structured questionnaire as the survey instrument. The questionnaire was administered to the employees of twenty randomly selected organizations. The study observed that autocratic and democratic leadership styles had a positive significant relationship with organizational performance. However, the study used a small sample size. Also, Saleh, Nusari, Habtoor, and Isaac (2018) in a study of some selected listed companies in the manufacturing sector in Yemen documented a positive significant effect of leadership style. Bhargavi and Yaseen (2016) in a survey study from the UAE found that leadership style was significantly correlated with organizational performance. Zuhairy, Tajuddin, Iberahim, and Ismail (2015), using some firms in construction industries in Malaysia, reported a significant positive influence of transformational leadership on business performance. Mkheimer (2018) evaluated the impact of leadership styles on business success among a sample of small and medium scale enterprises in Jordan. A questionnaire survey was adopted and 85 valid observations obtained were subjected to multiple regression analysis. The study found that the transformational leadership style had a significant positive relationship with financial performance while the transactional leadership style had a significant negative relationship. Sofi, and Devanadhen (2015), in a study of some select banks in India, revealed the significant effect of the transformational leadership style on corporate performance. Also, Martin and Edward (2016) investigated the link between leadership styles and project success in India and observed that transformational and democratic leadership styles were efficient in achieving project success.

In Nigeria, Obiwuru, Okwu, Akpa, and Nwankwere (2011) contributed to the discourse by employing a sample of selected small scale enterprises; using a survey research methodology and Ordinary Least Square (OLS) multiple regression analysis, the study showed a significant positive effect of transactional leadership style. Methodology gaps observed in this study include small sample size and an inadequate number of observations. OLS multiple regression analysis requires a minimum of thirty observations like other regression analysis tools. In another study, Ukaidi (2016) explored one-way ANOVA as a method of data analysis and revealed that managers with democratic inclinations perform better than managers with autocratic and laissez-faire leadership styles. At best, this study could be regarded as a case study because Nigeria has over one hundred and fifty universities (Federal, State, and Private), as of 31st December 2016, from which this study chose only two. Therefore, the outcomes of this study should be interpreted with caution. Also on this discourse, Ojokuku, Odetayo, and Sajuyigbe (2012) explored purposive sampling techniques, questionnaire surveys, correlational and regression analyses, and found that leadership style dimensions jointly predict organizational performance. Specifically, the study revealed that the transformational and democratic leadership styles exerted a positive significant relationship on corporate performance. Nongo (2015) used a sample of Small and Medium Scale Enterprises in Nigeria, exploring questionnaire survey design and Chi-Square statistics the study revealed a significant positive effect of transactional leadership style. Abasilim (2017) reviewed the extant literature on the subject matter of this discourse with an emphasis on the Nigerian work context, the paper located the consensus research opinion that a significant positive relationship exists between the transformational leadership style and organisational performance. Ajibade, Ajayi, and Shobowale (2017) posited that the success or failure of organisations depends on the leadership style. Odulami, Awosusi, and Awolusi (2017) discovered that charismatic and transformational leadership styles exert a significant positive influence on employees' performance. Ibrahim and Daniel (2019) revealed a direct effect of the leadership style on organizational performance.

In other African countries, Berraies, and Bchini (2019) from Tunisia and Gachingiri (2015) from Kenya reported a significant positive relationship between transformational leadership style and corporate performance. Koech, and Namusonge (2012), in a descriptive survey study of state-owned corporations in Kenya, revealed a positive significant correlation between transactional leadership style and organizational performance. Also, Beakana (2017), in a study from Kenya observed a direct relationship. Apart from revealing mixed results, the foregoing literature review showed that autocratic, democratic and Laissez-faire was less examined as leadership style variables, hence the following hypothesis was formulated for the study:

H_0: *There is no significant relationship between leadership styles (autocratic, democratic, and Laissez-faire) and the performance of non-listed companies in the debt crisis in Nigeria.*

3.0 METHODOLOGY

A descriptive research design involving the questionnaire survey technique was explored. This technique is suitable for the collection of data from subjective opinions of respondents from behavioural variables of interest such as leadership styles and non-financial data that may not be obtainable from secondary sources. By applying Yamane (1967) sampling size formula, as shown below, 80 non-listed companies (AMCON, 2018) were sampled from a population of 98 AMCON chronic debtors.

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

Where: n = Sample Size; N = Study Population; e = Significant Level

$$n = \frac{98}{1 + (98 \text{ x } 0.05^2)}$$

n = 80 Companies

Stratified and random sampling techniques were employed to obtain proportionate samples from each sector and ensure an equal chance of selection respectively. Subsequently, copies of the questionnaire were administered to 240 top management team members (3 per company) and 204 copies of the questionnaire returned were found suitable and used for data analysis. The model of the study was first presented in functional forms (equation 1 & 2) and subsequently presented in equation form (equation 3). The model relates corporate performance with autocratic, democratic, and Laissez-faire leadership styles.

Model Specification

$$\mathrm{CPF} = \mathrm{f}(\mathrm{LSTY}) \tag{1}$$

$$\mathrm{LSTY} = \mathrm{f}(\mathrm{AUT}, \mathrm{DEM}, \mathrm{LEZ}) \tag{2}$$

$$\mathrm{CPF} = \alpha_0 + \alpha_1\mathrm{AUT} + \alpha_2\mathrm{DEM} + \alpha_3\mathrm{LEZ} + \varepsilon \tag{3}$$

Where: CPF – Corporate performance; LSTY = Leadership style; AUT = Autocratic leadership style; DEM = Democratic leadership style and LEZ = Laissez-Faire leadership style/

Corporate performance was represented with both financial and non-financial performance measures (Obiwuru *et al.* 2011). Financial performance measures include the levels of profitability, return on shareholders' investment, and the company's turnover within the last 3 years. The non-financial performance consists of the level of customers' satisfaction and the efficiency of operations in the last three years. Three years were chosen for the assessment because the debt crises rocking the sampled companies were made public in the year 2016 and this study attempts to assess the leadership efforts to turn around the companies between the

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year 2017 and the year 2019. Each item was measured by a five-point Likert Scale rating between Strongly Very Low" = "1" and "Very High" = "5" (Appendix I). To measure leadership styles, this study adapted Lewin's leadership style questionnaire as modified by Bryman, and Bell (2011) and Kumar (2010). This research instrument consists of 5 items for each of the three leadership styles identified in the studies of Bryman, and Bell (2011) and Kumar (2010). Each item was measured on a five-point Likert Scale: "Strongly Disagree" = "1"; "Disagree" = "2"; "Moderate" = "3"; "Agree" = "4" and "Strongly Agree" = "5" (Appendix I).

Exploratory factor analysis was employed to assess the reliability and validity of the scale used in this study. Some Scholars such as Comrey, and Lee (1992) noted that the minimum acceptable load of any item in the scale should not be less than 0.32. It was also posited that various levels of factor loading were categorized as follows: Excellent: ≥.71; Very Good: ≥.63; Good: ≥ .55, Reasonable: ≥ .45; Poor. ≤.32. Following the benchmark and parameters suggested by Comrey, and Lee (1992), some of the items in the scale were rephrased since they were below the benchmark. Ultimately, most of the items in the questionnaire used for this survey were classified as excellent and very good (Appendixes 1a & 1b).

4.0 RESULTS

4.1 Descriptive Statistics

Table 1 presents the descriptive statistics of the study. Corporate performance in the past three years was rated moderate among the sampled companies (mean = 2.7647). Although the sampled companies are facing a debt crisis, their performance is moderate. This outcome suggests that the leadership of the companies is making fruitful efforts to overcome the financial crisis. Managers of the various companies sampled for this study explored the autocratic leadership style strongly (mean = 3.5098); the democratic style moderately (mean = 2.9069); and the Laissez-faire leadership style moderately too (mean = 2.4755). These outcomes suggest that an autocratic leadership style may be preferable during the period of the corporate debt crisis.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
CPF	204	1.00	5.00	2.7647	.84430
AUT	204	1.00	5.00	3.5098	.83336
DEM	204	1.00	5.00	2.9069	.93963
LEZ	204	1.00	5.00	2.4755	.76525
Valid N (list-wise)	204				

Source: Field Survey (2020)

4.2 Test of Hypothesis

Table 2 shows the level at which the variance in corporate performance can be explained by the leadership style variables. The study observed a strong positive relationship between the three leadership styles and corporate performance (R = 0.797) while 63.6% (R2 = .636) of the variance in corporate performance can be explained by a unit change in each of the three leadership styles.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.797	.636	.630	.51345
a. Predictors: (Constant), LEZ, AUT, DEM				

Source: Field Survey (2020)

Table 3 (ANOVA Table) shows that the fitness of the model is good (F value = 116.297, p<.001, Sig = .000). This outcome suggests that the model has strong predictive power.

Table 3: ANOVA

Model		Sum of Squares	DF	Mean Square	F	Sig.
1	Regression	91.979	3	30.660	116.297	.000
	Residual	52.727	200	.264		
	Total	144.706	203			
a. Dependent Variable: CPF; b. Predictors: (Constant), LEZ, AUT, DEM						

Source: Field Survey (2020)

Regression coefficients were presented in Table 4. The Multicollinearity issue was assessed with variance inflation factors (VIF) and tolerance values. All the VIF values were below 10 (Belsely, 1991; Field, 2000; Meyer, Allen & Gellantly, 1990) and all the tolerance values were above 0,2 (Mernard, 1993). Therefore, it can be inferred that there is no multicollinearity problem among the independent variables of the study. The model of the study shows the extent of the relationship between the three types of leadership styles and corporate performance. The study revealed that autocratic leadership style had the strongest positive significant relationship with corporate performance (beta=.806, t = 17.222, P<.05, Sig. = .000). Furthermore, findings showed that democratic leadership style had a positive non-significant relationship with corporate performance (beta=.006, t = 0.129, P>.05, Sig. = .898). The Laissez-faire leadership style also had a positive non-significant relationship with corporate performance (beta=.069, t = 1.520, P>.05, Sig. = .130). These findings suggest that an autocratic leadership style is effective in enhancing corporate performance when a company is facing a debt crisis while democratic and Laissez-faire leadership styles are ineffective in such a situation. A possible reason for this observation could be that drastic measures, which can be aided by adopting an autocratic leadership style, have to be taken during a corporate financial crisis. This finding suggests that a significant positive relationship exists between the autocratic leadership style and corporate performance in companies experiencing debt crisis in Nigeria.

Table 4: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.309	.312		-.989	.324		
	AUT	.817	.047	.806	17.222	.000	.831	1.204
	DEM	.006	.043	.006	.129	.898	.791	1.265
	LEZ	.077	.050	.069	1.520	.130	.873	1.146
a. Dependent Variable: CPF								

Source: Field Survey (2020)

5.0 Discussion

This study observed that leadership style had a significant positive relationship with corporate performance which agreed with the outcomes from studies of Beakana (2017), Ibrahim, and Daniel (2019), and Saleh *et al.* (2018). Our outcomes specifically derived support from the studies of Bhargavi, and Yaseen (2016) and Ebrahim (2018) which revealed that autocratic leadership style had a significant positive effect on corporate performance. Our findings also aligned with the results from studies of Berraies, and Bchini (2019), Flanigan *et al.* (2013), Gachingiri (2015), Martin, and Edward (2016), Mkheimer (2018), Sofi, and Devanadhen

(2015) and Zuhairy *et al.* (2015), which documented a significant positive relationship. Our results also agreed with the outcomes from studies of Koech, and Namusonge (2012), Obiwuru *et al.* (2016), and Ojokuku *et al.* (2012) which revealed a significant positive effect.

However, the findings from the study of Berraies, and Bchini (2019) did not support our outcomes because they established a significant negative relationship between transactional leadership style and corporate financial performance. The outcomes of our study were also contrary to the findings of Ukaidi (2016) which revealed that managers with democratic inclinations perform better than managers exploring the other two leadership styles examined in this study. Furthermore, the study of Milolosa (2019) which documented that a mix of autocratic, democratic, and Laissez-faire leadership styles were associated with the financial performance of enterprises in a stagnant phase did not support the outcome of this study. The difference between our results and this group of studies may be premised on the nature of the companies sampled for our study, being in a debt crisis.

6.0 Conclusion

The main objective of this study is to examine the relationship between leadership styles and corporate performance in non-listed companies facing a debt crisis in Nigeria. The study documented moderate financial and non-financial performance among the sampled companies. A positive significant relationship was observed between only the autocratic leadership style and corporate performance. Hence, it was concluded that an autocratic leadership style is more appropriate in debt-ridden companies. Consequently, the study recommended that the managers of companies in debt crises should explore the autocratic leadership style more than other styles of leadership to accelerate corporate recovery from the financial crisis. However, future studies may consider charismatic, transactional, and transformational leadership styles that were not covered in this study. Other over 12,000 AMCON debtors, with debt below ₦5 billion could also be considered in future studies.

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Appendix

Appendix 1a: The Description of the Items in Factor 1 (Managers' Leadership Styles)

Item	Description	Loading
Autocratic Leadership Style		
AL1	Employees need close supervision.	.78
AL2	Most employees are generally lazy.	.75
AL3	Reward or punishment must be used to get work done.	.71
AL4	Most employees need to be directed.	.73
AL5	The achievements of the subordinates are mainly determined by the leader.	.77
Democratic Leadership Style		
DL1	Employees should be involved in decision-making.	.76
DL2	Good leaders provide guidance without pressure.	.70
DL3	Workers need supportive information.	.68
DL4	Subordinates should be helped to accept responsibility.	.71
DL5	Subordinates should be aided to discover their passion.	.73
Laissez-Faire Leadership Style		
LL1	The subordinates should sort problems out when in difficult situations	.71
LL2	Subordinates are allowed to appraise their work.	.75
LL3	Subordinates prefer little inputs from their leaders.	.72
LL4	Subordinates should be given total freedom to carry out their assignments.	.73
LL5	In general, employees are not lazy and will do their work as expected.	.68
Note. 15 items; Reliability = 0.81 (Cronbach's α in EFA)		

Source: Field Survey (2020)

Appendix 1b: The Description of the Items in Factor 2 (Corporate Performance)

Item	Description	Loading
Corporate Performance		
CPF1	Profitability	.76
CPF2	Return on shareholders' investment	.78
CPF3	Company's turnover	.74
CPF4	Customers' satisfaction	.72
CPF5	Efficiency of operation	.77
Note. 5 items; Reliability = 0.76 (Cronbach's α in EFA		

Source: Field Survey (2020)

APPRAISAL OF COMPANIES AND ALLIED MATTERS ACT 2020

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ABSTRACT

This research paper explored the newly enacted Companies and Allied Matters Act 2020. The purpose of this research is to identify major changes to the Act and show how it will enhance business activities. Thus relevant sections of the Act were examined and the changes between the previous and current CAMA were explained. It examined the lapses in the old CAMA which the new Act has been able to resolve. Therefore, the findings of this paper show the effort of the new CAMA to conform to future needs and unanticipated circumstances. Thus, the new Companies and Allied Matter Act created new provisions which portray current business activities and decreased compliance costs and administrative obstacles for carrying on business in Nigeria. More importantly, it introduced the company administration process to rescue companies from their state of insolvency. However, the new Act removed the requirement for a legal practitioner to sign the statutory compliance which attests to the fact that the applicant has complied with the Act. Today the applicant or his agent may sign the compliance form without recourse to a lawyer. This of course has generated a lot of reactions within the legal profession. The findings of this paper, therefore, shows that although the Act introduced major changes to help business administration in general, however, there are still yet some aspect of the company administration procedures that needs further development of the law. For example, the expiration of the appointment of the administrator after one year should be re-considered. The old law which allowed no limitation for the appointment of receivership is preferable.

Key Terms: CAMA, Act, Company, Business, Administration, Shares, Shareholder

1.0 INTRODUCTION

The Companies and Allied Matters Decree No. 1, 1990 was the first major amendment that nullified the then Companies Act of 1968. Then it became the Companies and Allied Matters Act (CAMA) 2004. However, since CAMA 2004, no major amendment was incorporated to the Companies Act for thirty years. Yet England, the originator of our laws have over the years amended its company laws. The major flaws with the old CAMA were quite significant. There were gaps in doing business in Nigeria. The old CAMA created bottlenecks in the free flow of performing businesses in Nigeria. For example, the cost of registration was high, fillings of incorporation documents required physical appearance at CAC. Furthermore, it took time to get the incorporation certificate. In short, it was quite cumbersome to incorporate a company with the old Act because there were a lot of technicalities involved. Thus, the Act was obsolete and affected the development of the Nigerian corporate world. The Act has been depicted as obstructing current strategic policies in the light of public and worldwide changes. An inadequate or obsolete legal system can hinder efficiency and development and sabotage business growth. It is for this reason that a strong legal structure is key to an enabling business environment. It hence became apparent that the provisions of the CAMA 2004 needed to meet up with international business standards; consequently, it became necessary to make the Act more contemporary and important.

Therefore, the newly enacted CAMA 2020 by the Buhari regime on August 7, 2020, paved the way for doing business with ease. The Act gives a strong legal structure that will help reform burdensome regulations that have for 30 years made it difficult to engage in business ventures. The newly enacted Act will particularly help Micro, Small and Medium Enterprises in Nigeria (MSMEs) (Banwo & Ighodalo 2020). The Act introduced electronic registration where you don't have to be physically present to file your incorporation documents. Small businesses can now get their business certificate without the usual unnecessary delays that came with the old Act. The cost of fillings was also reduced. In addition, the need for a lawyer to sign the compliance form when submitting the incorporating documents has been dispensed with in the New Act. CAMA 2020 is perhaps the most fundamental statute which affects MSMEs in Nigeria (The Nigerian Senate 2018). Besides, it influences the inflow of Foreign Direct Investment (FDI) into Nigeria. Thus, the National Assembly saw the gaps in the Act as it relates to businesses. It thus became imperative to build a strong legal framework that will enhance business development and the ease of doing businesses in Nigeria. Consequently, this research study will highlight the major changes that have been made with the new CAMA 2020. Not all the changes will be treated, but rather the ones that a layman doing business can readily identify itself with. It will explore how the provisions of the Act dealt with major deficiencies of the old Act and aligned it with international best practices.

2.0 LITERATURE REVIEW

This section is a review of the historical development of companies over the years and what has brought forth the present improvement to the CAMA 2020. Prior to 1876, no laws were overseeing the operations of companies in Nigeria. The companies in existence were foreign companies. For example, there was the era of the Royal Niger Company, South Sea Company, the East India Company and the United African Company. These companies were the only ones engaged in commercial operations in Nigeria at the time (Abugu, 2014). Eventually, in 1876, the Supreme Court Ordinance was promulgated for the Colony of Lagos which was under the British Crown. The Act provided for the introduction of 'common laws of England,' 'doctrines of equity' and also 'statutes of general application' that were in force on the 1st day of January 1900 in England. These were the Received English law The Northern and Southern Protectorate were amalgamated in 1914 and then was established the Supreme Court Ordinance of 1914 which covered entire Nigeria. Thus the Received English Law became applicable to the whole of Nigeria (Abugu, 2014).

The 1912 Ordinance was the first company ordinance that provided for the incorporation of companies through registration. The ordinance was repealed and became chapter 37 of the laws of Nigeria 1958. There have been several amendments over the years. Thus the Companies Act 1968 was promulgated by the federal government. This Act made some major changes in line with the then 1948 English Companies Act. However, the Act came with a lot of criticism. Thus the Act was repealed. In 1979, Nigeria incorporated a presidential system of government similar to that of the United States of America. Thus, in the exercise of the presidents' power the Company Act was given a new face. Consequently, the CAMA 1990 was introduced. The 1990 Companies Act was a great innovation than the last as it made provisions for business names, incorporated trustees and the Securities and Exchange Commission. It established the Corporate Affairs Commission (CAC). Although CAMA 1990 brought in some major changes, however, the Act could not meet up with the expanding economic growth in Nigeria. CAMA 1990 became inadequate to meet the present economic challenges in Nigeria. Thus there has been a lot of advocate over the years for the amendment of the CAMA 1990. The Nigeria Bar Association has also been at the forefront of a change in the Companies Act. Finally, after 30 years, a new Act emerged.

The literatures on the introduction of the new CAMA have applauded the Act as a new development towards the ease of doing businesses in Nigeria and have thus highlighted the major changes in the new Act. Some writers believe that the new Act will make it easy specifically for small enterprises to conduct their businesses without any difficulties (Ogwemoh & Akorede, 2020). According to Ogwemoh, the new Act is being brought to the same standard as what is obtained in developed countries (Ogwemoh & Akorede, 2020). The old Act made doing business difficult, however, with the incorporation of major provisions in the Act, it is expected that the new CAMA will make doing business easy. The introduction of the electronic means of registration, the reduced cost of filing fees, the removal of the statement of compliance form, the introduction of a single-member company will now improve the ease of doing business.

3.0 METHODS

This research study adopts the doctrinal approach. It critically analyses various sections of the CAMA 2020. This study also makes use of primary sources which are CAMA 1990 and CAMA 2020, the Nigerian Constitution. Secondary sources were also adopted. Consequently, literature by legal experts, Textbooks, reports, documentaries, and websites of legal experts were explored.

4.0 RESULT AND DISCUSSIONS

4. 1 Key Amendments to Companies and Allied Matters Act 2020

This section deals with the changes made to the Companies and Allied Matters Act. More discussion has been directed towards the newly introduced company administration.

1. Comprehensive Corporate Affairs Commission Board.

The composition of the Corporate Affairs Commission (hereinafter referred to as 'CAC' or 'the Commission') Board is now expanded to include representatives of the Institute of Chartered Secretaries, representatives of the Nigerian Association of Small and Medium Enterprises (Section 2(b) IV and V). The previous Act did not include these bodies. This new incorporation will create an opportunity to permit inputs from proficient company secretaries who manage CAC routinely. Furthermore, small businesses are now well represented.

2. Single Membership/Shareholder Company

By section 18(2) of the Act, a private company is not allowed to consist of a single member. Thus every section of the Act that applies to a private company limited by shares or by guarantee will also apply to a single-member company. Before now the minimum membership of a private company was at least two (2) people (Section 18). The benefit of a single-member company is the same as those of a private limited company as stated under the Act. Thus a single-member company will now enjoy limited liability. The funds of the company become separate from the sole owner. The single-member company now enjoys perpetual succession. That is the death of the owner will therefore not bring the company to an end. Furthermore, this provision will empower sole proprietorships to enlist as companies and take advantage of the corporate personality of companies. It is appropriate to state that micro, small and medium businesses are a force to be reckoned with in the Nigerian economy. This set of businesses alone produces altogether around 60 million Nigerians, yet just about 14% of them are enlisted under CAMA (Uzoka, 2020). Therefore, this new development is thereby critical for holding companies such as the multinational companies who would now be the lone investor in their subsidiary companies. Also, single Members Company is in line with global best practices. For example, countries such as Singapore, India, and England practice this type of company (Uzoka, 2020).

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3. Registration of Businesses

(a) Electronic Registration

The Act now allows you to file documents electronically. The purpose for which is to provide a simple and easy way of performing one's business. This is, in contrast, to physically filling the documents with the CAC This should quicken the incorporation process and make it easy for individuals to readily register their company. Consequently, this will require an update in the CAC Technological system in other to have a consistent and free-flowing electronic filing system (KPMG 2020).

(b) Model Article of Association

Another innovation concerning the registration of a company is the provision of a model Article of Association (Section 33(1)). According to CAMA 2020, CAC has the power to endorse a model Article that every company is expected to adopt. This model article may be prescribed for different types of companies (Section 33(2)). CAMA 2004 had endorsed Articles of Association in Table A of the First Schedule to CAMA1990. The removal of this model Articles from the 2004 Act and now bestowing on the Commission the right to create its own article introduces versatility and guarantees ease of future changes (Section 33(2)).

(c) Company Object

By Section 35 of CAMA, the company's objects are now unrestricted. However, a company may choose to restrict its object clause by its Articles of Association. The implication of this is that the ultra vires rule will no longer apply to the object of the company and would eliminate the need to incorporate separate companies with different object clauses (Section 35). Although this change is a positive move, it, however, obscures the differences in a company tax payable under the Companies Income Tax Act ('CITA') and other businesses (KPMG, 2020). Therefore, the need to give special attention to this amendment. Some lawyers have encouraged companies to consider the advice of tax professionals in assessing the impact of this change (KPMG, 2020).

(d) Share Capital

The Act replaces the term "authorized share capital" with "issued share capital." The whole essence of the minimum issued share capital suggests that a company will pay CAC stamp duties and filing fees for the minimum issued share capital. However, if the minimum issued share capital increases in the future, stamp duties and filing fees will only apply to the increment. Thus the issued share capital of a private company is N100, 000 while that of a public company is N2, 000,000 (Section 27(2)). This change, therefore, increases the minimum amount of share capital a company must possess. In the previous Act, the minimum share capital was N10, 000 and N500, 000 respectively. Additionally, this new amendment dispenses the need for companies, particularly private and unlisted entities, to denominate their authorised share capital in Naira (Uzoka, 2020). Furthermore, the requirement that companies must allot 25% of their shares is no longer applicable. Thus the Subscribers to the memorandum of Association are not required anymore to subscribe to 25% of the shares.

(e) Statement of Compliance

According to section 40 of the Act, a statement of compliance that the company registration complies with the Act can now be signed by either the applicant or his agent (Section 40(1)). Previously, only a legal practitioner was entitled to sign, which was to be submitted along with the incorporation documents. Thus the position of the company law as of now implies that anyone can sign. Some writers have stated that this will contribute to the ease of doing business as the need for a lawyer has been dispensed with (KPMG, 2020). Thus the implication for the legal profession is that the legal practitioner is no longer needed to incorporate a company that before now was done solely by them. However, such a change may create future problems as it may affect the quality of pre-incorporation work done. CAC may have more problems on their hands as mediocrity may end up being the order of the day. The Applicants or his agent are not trained to know all the requirements of the Act. A lawyer has been trained in respect of such purposes. Thus, the Commission may need to review this particular provision (Uzoka, 2020).

(f) Right of First Offer and Other Restrictions

The Act introduced the Right of the first offer in a private company. The right of the first offer means that a member of the company cannot sell its shares to a non-member without first offering to sell the shares to existing members. Furthermore, a private company cannot sell the company's assets worth 50% without the approval of all the members of the company. Likewise, a member is not allowed by the Act to sell 50% of its shares to non-members, except the non-member offers to buy all the existing members shares on the same terms.

(g) Exemption from the Appointment of Company Secretary

Section 330(1) presently makes it discretionary for private companies to appoint a company secretary. According to the Act, every company shall have a company secretary except for small companies. This exclusion of a company secretary for small companies will help reduce the expenses of maintaining a business in Nigeria, as a member of the company can likewise perform the role of a company secretary. The Act still retains the class of people with the required qualification that can be appointed as a company secretary (Section 332, CAMA 2020; Section 295 CAMA, 2004).

(h) Common Seal

This has now become discretionary under the Act. It is no longer compulsory for a company to have a company seal. In the previous Act, every company was required to have a seal. Although the requirement for a seal is no longer mandatory, however, a seal brings with it a touch of professionalism and validates documents from the company. Be that as it may, a company is allowed to have an alternative method of authorization of company documents. If a company does not have a seal, authorization can be made by a director of a company and a secretary or two directors or a director with the attestation of a witness (Section 102).

(i) Share Certificate

Due to the amendment in Section 98 of the Act which makes a common seal discretionary, a share certificate may be signed as a deed where a company has no seal. However, where a company has a seal the share certificate may be issued with the company seal affixed to it (Section 171(3)).

(j) Validation via Electronic Signature

Section 101 provides for validation of company document to be signed by a director, secretary or other approved official of the company and need not be signed as a deed except if in any case it is explicitly required by the Act. Furthermore, the section provides that electronic signature is considered to fulfil the prerequisite for validation (Uzoka, 2020).

4.2 Company Administration

Before the emergence of CAMA 2020, a company may be required to go into liquidation and thus a receiver or liquidator was appointed during the process of liquidation. Section 443 of the Act, has now introduced the administration of a company as a substitute for liquidation. Administration is a recognised insolvency procedure whereby an insolvency practitioner is

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appointed as an administrator to manage the affairs of the insolvent company with the main aim of rescuing it. Section 441(1) states the functions of the Administrator as follows:

(1) The administrator of a company may do all such things as may be necessary for the management of the affairs, business and property of the company, and shall perform his functions with the objective of –

a) rescuing the company, the whole or any part of its undertaking, as a going concern;

b) achieving a better result for the company's creditors as a whole than would be likely if the company were wound up, without first being in administration; or

c) realising property to make a distribution to one or more secured or preferential creditors (CAMA 2020).

From the above, we see that the function of the administrator is a key ingredient in company law. However, section 444(1) of the Act, emphasizes the fact that the primary function of an administrator is to rescue the company. Hitherto before now, a company may begin the winding-up process where it is unable to pay its debt. Today, the whole idea is to prevent such from happening, but rather resuscitate the company back to where it should be if possible. Administration provides the likelihood that the company can endure its financial troubles and still keep its business. Thus there are quite a several advantages of a company administration. Administration ensures that the company is safeguarded from compulsory liquidation, thus any legal action by the creditors immediately stays. Thus once an administrator is appointed no legal action may be instituted against the company. The only exception is where there is an order of approval by the Federal High court or administrator. The company is thus protected from any legal proceedings and injunctions from its creditors. The appointment of an administrator thus ensures that the interests of the company and creditors are well protected (Section 444(3)). The bar against legal proceedings will ensure that the administrator concentrates on reviving the company business.

I. Administration Order

By section 449 of the Act, the "Court may make an administration order in relation to a company, where it is satisfied that the- (a) company is or is likely to become unable to pay its debts; and (b) administration order is likely to achieve the purpose of administration" (CAMA 2020). However, an administration order can be made by the following persons: the company, directors of the company and the assigned officer of the Federal High Court. Administration can likewise be initiated out of court (Section 459). This happens when an administrator is appointed by either the company, its director or the holder of a floating charge that meets the specified conditions (Section 472). Where administration is made out of court, the individual appointed as the administrator must file a notice of appointment and other documents that may be recommended with the CAC (Section 455(1)).

II. Appointment of the Administrator

According to section 447(1), an administrator must be a qualified insolvency practitioner. The remuneration of the administrator is to be paid from the assets of the company which is in the care of the administrators. At least two directors may be employed either jointly or concurrently. Once appointed, the 'administrator is an officer of the court' or 'an agent' to the company for this purpose. Thus he is not an agent of the person who appointed him.

III. Administration Process

After his appointment, the administrator must within 14 days send a notice of his appointment to the company and CAC (Section 483(1)). In addition, he is to send his notice of appointment to all the creditors. "Within 60 days of appointment, the administrator is required to prepare a detailed schedule of assets and submit a copy to the person who appointed him." (Udoma & Belo-Osagie 2021). In other to assist his work, the administrator may issue a notice to a former officer or employee of the company, requiring such person(s) to give a statement of affairs of the company. Having gone through the statement of affairs of the company, the administrator would send a proposal to the creditors to determine how to resolve the issues at hand. Where the proposal isn't accepted by the creditors, the administrator will apply to the Court for the way forward.

IV. The Effect of Administration

Section 477(1) clearly outlines the effect of administration as follows:

(1) A petition for the winding-up of a company shall be –

  a) dismissed on the making of an administration order in respect of the company; and

  b) suspended while the company is in administration following an appointment under section 475 of this Act. Dismissal of a pending winding-up petition.

(2) The provision of subsection (1) (b) does not apply to a petition presented undergrounds of public interest as may be prescribed from time to time by the Chief Judge or under an enactment.

(3) (3) Except with the leave of the Court, subsection (1) (a) and (b) does not apply to a petition presented under special banking provisions of the Banks and Other Financial Institutions Act, Nigerian Deposit Insurance Corporation Act or any law or rule by a financial services and markets regulator (CAMA 2020).

V. Cessation of Administration

The appointment of an administrator will be terminated at the expiration of one year from the date the appointment took effect. However, the tenure of an administrator may be extended by the court for a specified period (before termination) or extended for a period not exceeding six months with the consent of each secured creditor of the company. Before the tenure of the administrators comes to an end, the court may, upon an application by the administrator or creditor, request the termination of the appointment of the administrator. Likewise, the appointment may also come to an end when the administrator files a notice to the court and CAC stating that the purpose of the appointment has been achieved. An administrator appointment may likewise come to an end through a public interest winding up or on an application of a creditor (Section 512).

5.0 Conclusion

The purpose of this paper was to highlight the major changes made to the New Companies and Allies Matters Act 2020. No doubt the new Act is a better innovation than the old one. The introduction of Electronic registration is particularly commendable as anyone can now register their business with ease. Furthermore, before now the idea of a sole business owner not having protection under the law no longer exists. Today, the new law which introduced a single member/shareholder will help one-man business to achieve the state of corporate personality. The Act further removed the minimum Authorised share capital for Private and Public

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companies. Today it is termed the 'issued share capital.' Thus the issued share capital which was formerly ₦10,000 and ₦500,000 is now increased to ₦100, 000 and ₦2,000,000 for private and public companies respectively. In addition, the requirement for a company secretary is no longer mandatory. Of all the major changes made which are quite welcoming, there are however some changes made which are left to be undesirable. For example, the Act no longer requires the legal practitioner to sign a statement of compliance. The applicant or agent can now sign the compliance form. This is quite unacceptable as such a change may affect the quality of work done. The Act seems to have dispensed with the need for a legal practitioner.

I submit that Corporate Affairs need to incorporate the expertise of the legal practitioner so as not to project mediocrity as the standard of the day as regards registration.

6.0 Recommendation

Although the new Act is highly commendable, however, there are still some grey areas that need improvements. Thus, this research paper suggests some recommendations. Firstly, the period of the appointment of the Administrator expires after one year, except there is an application for extension. This is a short period to revive a dying company. In the former Act, there is no limitation period for receivership. This system of time frame for receivership should also be incorporated into the company administration. Secondly, the requirement that the administrator must give 2 days' notice before being appointed should be expunged. The receivership procedure in the former Act does not require such notice. Lastly, in other to ensure the quality of the company registered, the government needs to consider restoring the endorsement of the statement of compliance by the legal practitioner.

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AGRICULTURAL FINANCING AND UNEMPLOYMENT RATE IN NIGERIA: IMPLICATION FOR ATTAINING SUSTAINABLE DEVELOPMENT GOALS

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ABSTRACT

The study examined the relationship between agricultural financing and the unemployment rate in Nigeria. The study covered the period 1981 to 2019. The study used the autoregressive distributed lag (ARDL) method and observed that government spending on agriculture (LGSAG) and agricultural credit guarantee scheme fund (LACGSF) inversely influenced the unemployment rate (UME) while commercial bank credit to agriculture (LCBCAG) had an insignificant effect on unemployment rate in Nigeria. The inference from the results is that agricultural financing can contribute significantly to the realization of the Sustainable Development Goals (SDGs) through the reduction in the unemployment rate which in turn would enhance the achievement of the SDGs goals 1 (zero poverty), 2 (zero hunger) and 10 (reducing inequalities). Thus, the study recommended the need to increase agricultural credit guarantee scheme fund and government spending on agriculture through an increase in agricultural budgeting and allocating more funds to the ACGSF. Also, there is the need for government to advise commercial banks to grant loans to farmers at a reduced interest rate, which is expected to reduce the unemployment rate.

Keywords: Agriculture Finance, Unemployment, Sustainable Development Goals, ARDL.

JEL Classification: E24, E51, Q01, Q14.

INTRODUCTION

Agriculture development plays a vital role in the attainment of sustainable Development Goals one and two, which are "poverty reduction" and "No hunger" respectively, because the agricultural sector opens up an economy for the provision of required industrial raw materials, stimulate industrialization, ensure food and nutrition security, and reduce the unemployment rate by creating employment opportunities. Its contribution to employment is even larger than its share of output, and its performance determines the well-being of a large percentage of the populace (Adebayo, 2013; Akintoye 2008; Aigbokhan, 2000). However, the sector is constraint by inadequate finance. According to the United Nations (2019), government expenditure on the agricultural sector has declined by 37 per cent, when compared to the contribution of the agricultural sector to economic growth. The ratio fell from 0.42 in 2001 to 0.26 worldwide in 2017. Furthermore, agricultural aids in less developed countries declined from almost 25 per cent of all donors' sector-allocable aid in the mid-1980s to only 5 per cent in 2017, representing a decrease of $12.6 billion. Without financing, the agriculture sector becomes stale and stagnant with no hope of improvement.

Despite the high potential of the agriculture sector, the unemployment rate is unacceptably high in Nigeria thereby making the unemployment issue one of the critical problems facing the country. The continuous rise in the unemployment rate in Nigeria is not only disturbing but also severe due to the fact that there seems to be no solution in sight. With the increasing rate of unemployment, the gap between the wealthy and the deprived has expanded, thereby widening the inequality gap and making the achievement of Goal 10 of the Sustainable Development Goal beyond your reach. Besides, unemployment yields social tensions - increase in brain drain, youth frustration, increase in migration rate and increase in drug abuse and crime rate- resulting in the loss of meaningful contribution to economic growth and development. The issue of unemployment with its attendance consequences is becoming more alarming than ever as little attention is being paid. The majority of the previous studies dwell much on government expenditure and its impact on unemployment (Bassey, Akpeati & Udo, 2014; Nwosa, 2014; Ijaiya, 2003) while others focus on the impact of agriculture financing and commercial bank credit on agriculture output (Ndubuaka et al., 2019; Emenuga, 2019; Lawal, 2019). Few studies also exist on the impact of government expenditure on unemployment (Onodugo et al., 2017; Nwosa, 2014). In view of the absence of studies on the link between agricultural financing and unemployment rate, despite the importance of agriculture in addressing the perennial problem of unemployment, this study intends to fill the gap in knowledge by examining this issue in Nigeria for the period 1981-2019.

Examining the link between agricultural financing and the unemployment rate is important as increasing the unemployment rate may likely hamper the achievement of Sustainable Development Goals such as poverty eradication and closing the inequality gap. According to the United Nations (2019), about 8 per cent of the world's labour force and their folks existed in extreme poverty in 2018. In Sub-Saharan Africa, the situation has remained worrisome, with about 38 percent of the global working poor in the region as of 2018 (UN, 2019. In addition, unemployment may impair economic development by halting the vision for self-sustaining economic growth which the government aspires to achieve particularly in the era of economic diversification in the face of declining and unsteady international crude oil prices.

Also, with the rising population growth in Nigeria (estimated at over 200 million (Varrella, 2020)) immediate actions have to be employed in curbing the threat of escalating unemployment rate to development, security and peaceful co-existence. Without ultimate and urgent attention to the issue of declining agricultural performance and increasing unemployment rate, greater problems will emerge and the actualization of a self-sustained and diversified economy may be elusive. Hence addressing this issue would not have come at a better time, given the urgent need to reverse the declining growth rate and the continued unreliable state of the oil sector in the face of unstable oil prices and declining global oil demand.

LITERATURE REVIEW

With respect to empirical literature, Ndubuaka, Okoro, Bello and Alozie (2019) examined the impact of agricultural financing on agricultural GDP in Nigeria between 1981 and 2016. Using autoregressive distributed lagged regression model, the study found that agricultural credit guarantee scheme fund (ACGSF) and government funding to agriculture had an insignificant impact on agricultural contribution to GDP (AGDP) while deposit money banks' credit, loans and advances to the agricultural sector (CBCA) had a significant and positive effect on AGDP. Emenuga (2019) investigated the relationship between commercial bank's credit and agricultural productivity in Nigeria for the period 1981-2017. The study employed the error correction model technique and the findings showed that agricultural credit guarantee schemes and commercial banks' credit had a positive and significant impact on agricultural development while interest rate had a negative impact on agricultural development in Nigeria.

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Inegbedion *et al.* (2019) investigated agricultural finance through agricultural extension services of agricultural development programs (ADPs) in Edo state using a sample of 120 respondents. The study aimed at ascertaining the extent to which agricultural extension services of the agricultural development programs have influenced agricultural finance in six chosen local government areas in Edo state. The study employed a stratified random sampling method in selecting respondents. The study used Pearson correlation and t-test estimation techniques. The results of the study showed that extension services significantly influenced crop development in Edo state. However, extension services had an insignificant influence on employment creation and infrastructural development of the state. Lawal *et al.* (2019) analyzed the relationship between deposit money bank credit and agricultural productivity in Nigeria from 1981-2015. Using Johansen co-integration test the result showed the absence of a long term link between deposit money bank credit and agricultural productivity.

Udeorah and Vincent (2018) analyzed the impact of agricultural finance on the performance of the agricultural sector in Nigeria for the period 1981-2015. The employed the error correction model method and the result showed that government financing through the agricultural credit guarantee scheme fund (ACGSF) significantly impacted aggregate agricultural output, group output and livestock output, while government recurrent expenditure on the agricultural sector had a significant negative effect on crop production in particular and agricultural output in general. Ishmael, Farouk and Odojomo (2018) investigated the impact of agricultural expenditure on unemployment in Nigeria for the period 1999 to 2015. The Ordinary Least Squares (OLS) was used and the result revealed that government expenditure on agriculture had an insignificant influence on the unemployment rate.

Jonny, Timipere, Krokeme and Markjackson (2018) examined the impact of foreign direct investment (FDI) on the unemployment rate in Nigeria for the period spanning 1980 to 2015. The study found an insignificant effect of FDI on unemployment rate while capital formation had a significant and positive effect on the unemployment rate in Nigeria. Ogbanga (2018) investigated agricultural development and employment generation with particular reference to Nigeria. Error correction and granger causality techniques were and result revealed that the agricultural sector and other explanatory variables contribute significantly to employment generation. Agene, Adediran, Urhie and Olaifa (2017) investigated the effect of agricultural performance on inclusive growth in Nigeria for the period 1981 to 2014. The study employed Fully-Modified Ordinary Least Square (FMOLS) and it was observed that agricultural financing had a long-run effect on per capita income in Nigeria. Ajayi, Nageri and Akolo (2017) examined the effect of deposit money bank loans to the agricultural sector and agricultural financing policy on agricultural productivity. The result revealed that agricultural financing policy proxy by Agricultural Credit Guarantee Scheme Fund (ACGSF) and deposit money bank loans (CBF) significantly enhanced agricultural productivity while lending rate had a significant negative impact on agricultural productivity.

Nwosa (2014) studied the effect of government expenditure on poverty and unemployment rates in Nigeria. The study covered the period 1981 to 2011and employed the Ordinary Least Square (OLS) method of estimation. The findings of the study showed that government expenditure had a significant and positive influence on unemployment. Danjos and Ali (2014) examined the consequences of unemployment on Nigeria's sustainable development. The study noted that the unemployment rate in Nigeria is partially accountable for the rise in kidnapping, armed robber, disruption of oil production through pipeline vandalization, a rising increase of poverty, advent of groups like Boko Haram, banditry, IPOB and Niger Delta Boys. More so, the study stressed that escalating unemployment rate had resulted in human resource waste and sub-optimal use of material resources, which have largely caused a setback in the attainment of sustainable development in Nigeria.

Gap in Literature

The review of literature showed studies exist on the relationship between agricultural financing and agricultural output (Ndubuaka et al., 2019; Inegbedion et al., 2019; Udeorah & Vincent, 2018; Ogbanga, 2018). Also, indigenous literature exists on the impact of government expenditure on employment (Farouk & Odojomo, 2018; Nwosa, 2014) and the impact of commercial bank deposits on agricultural production (Emenuga, 2019; Lawal, et al. 2019). However, it is observed that there exists a paucity of literature on the relationship between agricultural financing and unemployment in Nigeria, hence this study.

METHODOLOGY

Theoretical Framework

The theoretical framework of this study is based on the Keynesian theory of unemployment. The Keynes theory provides a better framework for this study because the Keynesians described public spending as an exogenous factor that can be employed as a policy instrument in enhancing economic growth (Keynes, 1936). A rise in government spending on agriculture (GSAG), commercial bank credit to the agricultural sector (CBCAG), and agricultural credit guarantee scheme fund (ACGSF) is likely to lead to a reduction in unemployment, enhance firms' investment and profitability through multiplier effects on aggregate demand.

Model Specification

The emphasis of this study is to investigate the degree to which agricultural financing influenced the unemployment rate in Nigeria for the period 1981 to 2019. To accomplish this, this study adopts the model by Ogberu, Abdulmalik and Park (2018) and Jonny et al. (2018). This model is specified as:

$$UEM = f\left(GSAG, EG\right) \qquad (1)$$

Given the focus of this study, other measures of agricultural financing such as ACGSF and CBCAG are included in equation (1), which becomes:

$$UEM_t = f\left(GSAG_t, ACGSF_t, CBCAC_t, EG\right) \qquad (2)$$

Where (UEM) stands for unemployment rate which is the dependent variable. (GSAG) is government spending on agriculture, (ACGSF) stands for agricultural credit guarantee scheme fund and (CBCAG) is commercial bank credit on agriculture, these three variables (GSAG, ACGSF, CBCAG) are used to proxy Agricultural financing. (EG) is economic growth and 't' is the current period. Bringing in other control variables that influence the dependent variable such as inflation (INF) equation (2) becomes:

$$UEM_t = f\left(GSAG_t, ACGSF_t, CBCAC_t, INF_t, EG\right) \qquad (3)$$

Semi log-linearizing equation (3) and introducing constant and stochastic terms we then have:

$$InUEM_t = \delta_0 + \delta_1 InGSAG_t + \delta_2 InACGSF_t + \delta_3 InCBCAG_t + \delta_4 INF_t + \delta_5 InEG_t + \mu_t \qquad (4)$$

δ_o is constant, μ_t is the stochastic term and δ_1 to δ_5 are the corresponding coefficients of the explanatory variables. Theoretically it is expected that; $\delta_1 < 0$; $\delta_2 < \delta_3 < \delta_4 > 0$ and $\delta_5 < 0$. This implies that it is expected that government spending on agriculture (GSAG), agricultural credit guarantee scheme fund (ACGSF), and commercial bank credit to agriculture sector (CBCAC) should have a negative relationship on unemployment (an increase in the three variables will reduce unemployment), a positive relationship is expected between Inflation and unemployment (an increase in inflation will increase unemployment), while economic growth expected to have a negative relationship with unemployment.

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The unemployment rate (UEM) is proxied by the number of unemployed to the total labour force. Agricultural financing is measured by agricultural credit guarantee scheme fund (ACGSF), government expenditure to the agricultural sector and commercial bank credit to the agricultural sector; Economic growth (EG) is measured by real gross domestic product (GDP) and inflation is measured by consumer price index (CPI). Data on unemployment is sourced from the National Bureau of Statistics and data on economic growth, inflation and agricultural financing is sourced from the Central bank of Nigeria statistical bulletin, 2019 edition.

RESULTS, PRESENTATION AND DISCUSSION

Correlation Matrix, Stationary and Co-Integration Tests

The correlation matrix presented in Table 1 shows that the unemployment rate (UME) was positively correlated with government spending on agriculture (GSAG), agricultural credit guarantee scheme fund (ACGSF), commercial bank credit on agriculture (CBCAG) and economic growth (EG) while the unemployment rate was negatively correlated with inflation rate (INF). The correlation matrix, therefore, suggested a possible positive relationship between the unemployment rate and agricultural financing in Nigeria. This was substantiated with further empirical analysis.

Table 1. Correlation Matrix

VARIABLES	UEM	GSAG	ACGSF	CBCAG	INF	EG
UEM	1.0000					
GSAG	0.6163	1.0000				
ACGSF	0.6701	0.7097	1.0000			
CBCAG	0.4599	0.5842	0.3600	1.0000		
INF	-0.3684	-0.3977	-0.3507	-0.1643	1.0000	
EG	0.7499	0.8165	0.8984	0.6581	-0.3489	1.0000

Source: Author's computation from E-views 9, 2020.

The stationary test is carried out using the Phillips-Perron test and the outcome of the estimate is depicted in Table 2. The result from the stationary estimate showed that unemployment rate (UME), government spending on agriculture (GSAG), agricultural credit guarantee scheme fund (ACGSF), commercial bank lending to the agriculture sector (LCBCAG) and economic growth (LEG) are integrated of order one, indicating that the variables are I(1) series while the inflation rate (INF) is integrated of order zero, indicating that the variables are I(0) series. The results of the Phillips-Perron unit root test showed a combination of both the I(1) and I(0) series of the variables of estimate.

Table 2. Stationarity Test

Philips Perron (PP) Test			
Variables	**Level**	**1st Difference**	**Status**
UME	-1.4818	-4.8747*	I(1)
GSAG	0.2359	-17.4354*	I(1)
ACGSF	-0.9944	-5.4213*	I(1)
LCBCAG	0.9713	-7.2048*	I(1)
INF	-3.1317**	-	I(0)
LEG	0.6846	-3.2426**	I(1)

Note: * and ** indicate 1% and 5% significant values respectively.

As a result of the mix-up in the unit root results, the Auto-Regressive Distributed Lag (ARDL) Bound Co-integration technique is employed. The findings of the co-integration analysis showed that the value of the F-statistics (4.83) is greater than the upper bound value at a five percent critical value (4.68), signifying the existence of co-integration among the variables.

Table 3: ARDL Bound Estimate

Estimated Model	**F-statistics**	
Estimated Model	4.8277	
Critical Values	**I(0) Bound**	**I(1) Bound**
10%	2.26	3.35
5%	2.62	3.79
1%	3.41	4.68

Source: Author's computation from E-views 9, 2020

Regression Analysis

The long-run regression estimate presented in Table 4 revealed that government spending on agriculture (LGSAG) and agricultural credit guarantee scheme fund (LACGSF) contributed negatively and significantly in influencing the unemployment rate (UME) while commercial bank credit to agriculture (LCBCAG) had an insignificant and positive impact on unemployment rate in Nigeria in the long run. Also, the inflation rate (INF) and economic growth (LEG) had an insignificant impact on the unemployment rate. The negative and significant effect of government spending on agriculture (LGSAG) and agricultural credit guarantee scheme fund (LACGSF) support the a-priori expectation and imply that a unit increase in spending on agriculture (LGSAG) and agricultural credit guarantee scheme fund (LACGSF) is expected to decrease the unemployment rate by 0.17 units and 2.42 units respectively. Furthermore, the insignificant effect of commercial bank credit to the agriculture sector (LCBCAG) on the unemployment rate in Nigeria, implies that the volume of credit from the commercial banks has not contributed to influencing the unemployment rate in Nigeria.

Table 4: Long-Run Regression Estimate

Regressors	**Estimated Co-efficient**	**Standard Error**	**t-Statistics**	**Prob.**
C	-54.4821	30.2257	-1.8025	0.0903
LGSAG	-0.1689	0.0666	-2.5345	0.0221
LACGSF	-2.4175	0.4832	-5.0032	0.0001
LCBCAG	1.0136	1.1126	0.9110	0.3758
INF	0.0184	0.0179	1.0263	0.3200
LEG	3.4543	3.5421	-1.8025	0.3440
Short Run Regression Estimate				
ECM(-1)	-1.3396	0.2020	-6.6327*	0.0000
Δ(UME(-1))	1.0798	0.1612	6.6977*	0.0000
Δ(UME(-2))	0.4315	0.1602	2.6931	0.0160
Δ(UME(-3))	0.4407	0.1400	3.1474	0.0062
Δ(GSAG(-2))	-0.0738	0.0287	-2.5683	0.0206
Δ(GSAG(-3))	-0.0947	0.0287	-3.2977	0.0045
Δ(LACGSF)	3.2385	0.6809	4.7565	0.0002
Δ(LCBCAG(-1))	4.6188	1.4224	3.2471	0.0051
Δ(LCBCAG(-2))	-4.6400	1.3261	-3.4991	0.0030
Δ(LEG)	4.6274	5.1815	0.8931	0.3851
$\mathbf{R^2}$ = 0.9061		**F-stat. (Prob.)** = 38.37 ($p < 0.05$)		
Adjusted $\mathbf{R^2}$ = 0.8806		**Durbin-Watson** = 2.036		

Source: *Authors' computation from E-views 9, 2020*
** signifies 1% level of significance*

The results from the short-run estimate showed that the first (ΔUME(-1)), second (ΔUME(-2)) and third lagged (ΔUME(-3)) values of unemployment rate had a significant and positive

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impact on the current unemployment rate while the second (ΔGSAG(-2)) and third lagged (ΔGSAG(-3)) values of government spending on agriculture had a significant but negative influence on current unemployment rate in Nigeria in the short run. Furthermore, the short-run estimate showed that the agriculture credit guarantee scheme fund (ΔLACGSF) and the first lagged value of commercial bank lending to the agriculture sector (ΔLCBCAG(-1)) had a significant and positive effect on the unemployment rate while the second lagged value of commercial bank credit to the agriculture sector (ΔLCBCAG(-2)) had a significant and negative impact on current unemployment rate in Nigeria. Finally, it was shown that in the short run, economic growth (ΔLEG) was insignificant in influencing the unemployment rate in Nigeria.

Table 5: Serial Correlation LM Test

F-Statistics	1.8665	Prob. F(2, 23)	0.1912
Obs*R-squared	7.1574	Prob. Chi-Square(2)	0.2791

Source: *Author's computation from E-views 9, 2020.*

Furthermore, the short-run error correction term (ECM (-1)) from Table 4 was significant and negative. The coefficient of the ECM term of -1.3396, revealed that the model adjusts its short-run disequilibrium by 133.96 percent speed of adjustment towards the long-run equilibrium. Also, the coefficient of multiple determinations (R^2) shows that 90.6 percent of variations in the unemployment rate are described by the explanatory variables while the remaining 9.4 percent of variations in the unemployment rate is described by factors outside of the model. The Durbin-Watson Statistics of 2.03 showed that the regression estimate is relatively free from the autocorrelation problem, thereby suggesting that the estimate is suitable for policy reference. The result of the Durbin-Watson statistics is also supported by the serial correlation LM test estimate in Table 5. The results from Table 5 show that the serial correlation is insignificant because the probability value is greater than 0.05

The long-run estimates in Table 4, indicated that government spending on agriculture (LGSAG) and agricultural credit guarantee scheme fund (LACGSF) had a significant and negative effect on the unemployment rate (UME) while commercial bank credit to agriculture (LCBCAG) had an insignificant impact on unemployment rate in Nigeria. The negative and significant impact of government spending on agriculture (LGSAG) and agricultural credit guarantee scheme fund (LACGSF) on the unemployment rate may reflect the increased drive by the federal government in reducing the reliance of the country on oil through the diversification process of boosting the productivity of the non-oil sector particularly the agriculture sector. Thus, the government investment in the agriculture sector may have contributed to influencing the unemployment rate negatively. Through the agriculture credit guarantee scheme fund, the government have equally provided loans at a reduced interest rate to agriculture investor, which may have attracted some unemployed into the agriculture sector, thereby reducing the unemployment rate in Nigeria. The inconsequential effect of commercial bank credit to the agriculture sector (LCBCAG) on the unemployment rate simply reflects the high lending rate of commercial banks which has always acted as an obstacle to businessmen in obtaining loans from the commercial banks. This finding implies that agricultural financing can contribute significantly to the realization of the Sustainable Development Goals (SDGs) by reducing the unemployment rate which in turn would enhance the achievement of the SDGs goals 1 (zero poverty), 2 (zero hunger) and 10 (reducing inequalities).

CONCLUSION AND RECOMMENDATION

This study analyzed the effect of agricultural financing on unemployment in Nigeria. Specifically, the study investigated how agricultural finance influenced the unemployment rate in Nigeria over the period of 39 years (1981-2019). From the analysis conducted the study observes that in the long run government spending on agriculture (LGSAG) and agricultural credit guarantee scheme fund (LACGSF) had a significant and negative effect on the unemployment rate (UME) while commercial bank credit to agriculture (LCBCAG) had an insignificant and positive effect on the unemployment rate. Drawing from the above results, the study concludes that government spending on agriculture (GSAG) and agricultural credit guarantee scheme fund (ACGSF) are important determinants of the unemployment rate in Nigeria, implying that these variables contribute to reducing the unemployment rate in Nigeria. Also, this study concludes that commercial bank credit on agriculture (CBCAG) is an insignificant determinant of the unemployment rate in Nigeria. The inference of these findings is that agricultural financing can contribute significantly to the attainment of the Sustainable Development Goals (SDGs) by reducing the unemployment rate which in turn would enhance the achievement of the SDGs goals 1 (zero poverty), 2 (zero hunger) and 10 (reducing inequalities). Thus, the study suggested an increase in government expenditure to the agriculture sector through an increase in the agricultural budget and allocation of more funds to the ACGSF. Also, there is the need for government to give directives to commercial banks to grant loans to farmers at a reduced interest rate.

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CONFLICT MANAGEMENT AND PERFORMANCE: DISSECTING THE EFFECT OF ACCOMMODATION STRATEGY ON EMPLOYEES' COMMITMENT AT THE FEDERAL POLYTECHNIC OFFA, KWARA STATE, NIGERIA

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ABSTRACT

Just like any other organisation, the employees of tertiary institutions in Nigeria and stakeholders are enmeshed with one conflict or the other, over the years, business organisations have devoted a greater part of their economic time and efforts towards mediation and settlement of disputes arising from arguments amongst employees and stakeholders. These crises have for decade persisted due to inadequate funding, welfare packages, emoluments, reward and other sundry issues which hinders the level of production hence, posing a negative challenge to industry and economic growth of an organization. This study, therefore, examined the effect of accommodation strategy on employees' commitment at the federal polytechnic Offa, in Kwara State, Nigeria. The study adopted a qualitative method using thematic analysis to analyse interviewed responses from five (5) senior members of staff, before the actual interview, a pilot test was carried out via respondent validity. The study explored the extent to which accommodation strategy has a positive effect on employees' commitment to better performance. The study, therefore, recommended that organisations should as a matter of necessity work towards accommodating various forms of opinions and demands from both the members of staff, labour unions and other stakeholders to get the desired level of commitment from employees. In conclusion, investigating and proffering solutions to all forms of disputes enhances the performance of tertiary institutions in Kwara State, Nigeria.

Keywords: Conflict, Conflict Management, Performance, Accommodation, Employee Commitment

INTRODUCTION

The success of a business entity and academic institution is determined by its ability and capacity to manage differences in the organisation. Each department brings together diverse groups of people who come from different backgrounds and have differing ideologies, personalities, perceptions, attitudes, beliefs, values, goals and interests. Differences in objectives and interests may sometimes be incongruent with those of other groups which may result in conflict. The different group tries to satisfies its objectives to the detriment of the others which leads to dispute. Onu and Hammed (2015), emphasizes that no organisation can function and performs well without encountering competition, unhealthy rivalry, absurd, contradictions, irrational behaviours in the system. The dynamic nature of the organisation brings about positive and negative relationships from employees of different departments with various professional qualifications and career progressions (Zhu, 2013).

Educational institutions in Nigeria are usually bedevilled with so many challenges ranging from scarcity of resources to build infrastructures, payment of salaries and emoluments to making funds available for research, innovation and development. This is quite pervasive in public-owned institutions of higher learning that are majorly dependent on tertiary education trust funds (TETFUND) gotten from budgetary allocation to the educational sector. However, staff of these institutions spent most of their productive energies and times especially those who are saddled with the responsibility of managing staff welfare by resolving issues that could be regarded as needless if the right things are being done on time to nip conflict in the bud.

The organisation in its entirety cannot exist without human and physical resources as a lubricant of the smooth running of its functions. Thus, achieving the organisational objective through goal congruence is always a challenge as a result of a conflict of interest among the employees and also within the management. Conflicts could either be “functional” which support an organisation’s goals, or “dysfunctional” which prevents an organisation from achieving its goals. Nevertheless, whichever form of conflict manifests, it may have destructive consequences if not properly handled. But if managed properly, conflict can add value to employee performance and increase organisational productivity. Conflict cannot be completely eradicated from human beings and their endeavours, be it groups, business entity and academic institutions.

Statement of the Research Problem

Most conflicts in Nigerian tertiary institutions arise as the government, as well as the management, failed to reach concrete terms of agreement with their employees and may aggravate more due to the style adopted in resolving the disputes. To this end, workers embark on industrial action, uprising, lethargy and the likes. Employees’ industrial action usually leaves them with low morale, decrease in productivity, loss of quality and vibrant staff, abscond from duty, low commitment to work, concealment of facts and good ideas that can benefit the institution and health challenges due to stress and depression. This study, however, determines how properly managed conflict can improve the performance of Federal Polytechnic, in Offa, Kwara State.

It has been observed that most institutions of higher learning have for decades been confronted with varying degrees of challenges among academic staff and school administrators, students versus academic staff, students versus school authorities, non-teaching staff versus school administrators. In recent times, similar to the above-mentioned problems is the contending issue of IPPIS (Integrated Personnel and Payroll Information System) for payment of workers’ salaries thereby leading to unrest and non-collaboration between the federal government and the various labour unions as well as stakeholders within the academic environment.

These disputes metamorphosed to distrust and disagreeableness among professionals and scholars thereby obstructing the peaceful, smooth, operative, diligent and productive administration in tertiary education. Despite these situations, stakeholders in the education sector seemed to develop nonchalant behaviour and less concern towards these disputes (Alajekwu, Henry and Alajekwu, 2017).

From the foregoing, most organisations have used a greater part of their economic time and energy towards settling conflict-related cases arising from disputes among staff and institutions managers, hence, it reduces the productive capacities of the employees. This is as a result of unacceptable behaviours an individual intends to impose/force into the scheme of things. These actions that are imposed continues for a period of time unabated, thereby hampering the economic growth of the organisation.

Objectives of The Study

1. To determine the effect of accommodation strategy on employees' commitment of the staff of tertiary institutions in Kwara State, Nigeria
2. To examine the effect of conflict strategy on employee performance of the staff of Federal Polytechnic, in Kwara State, Nigeria.

Research Questions

1. To what extent does accommodation strategy affect employees' commitment of Staff of tertiary institutions in Kwara State, Nigeria
2. To what extent does conflict management strategy affect employees' performance of Staff of Federal Polytechnic, in Kwara State, Nigeria

Research Hypotheses

H_{01}: There is no significant relationship between accommodation strategy on employees' commitment of Staff of tertiary institutions of Kwara State, Nigeria

H_{02}: There is no significant relationship between conflict management strategy and employees' performance of staff in Federal Polytechnic in Kwara State, Nigeria

LITERATURE REVIEW

The chapter is reviewed related concepts that addressed the problems under conflict management strategies in institutions and business entities, also theories underpinning the research were reviewed for proper understanding of the variables adapted so as to have a clear understanding of the concepts explored.

Conceptual Review

Issues of Conflict in Nigerian Polytechnics

In recent times, polytechnics in Nigeria have had a lot of problems hindering their development. Among these problems is the issue of discrimination against polytechnic graduates in the labour market due to the non-removal of ceiling on their career progression beyond grade level (GL14) especially in the public service. Underfunding of polytechnics in Nigeria is another area of dispute. The budgetary provision that is allocated for development, accreditation, staff salaries and other sundry expenses in the votes and sub-heads during the budgeting process are arbitrarily low which is hampering the growth and development of these institutions that were established to drive the technological advancement of the country's industrial sector.

In addition, the issue of migration to CONTISS 15 created a lot of crises in the system as the National Board for Technical Education (NBTE) issued a circular in October 2016 for the implementation of this migration as this was initially approved in 2009 by the administration of President Sheu Musa Yar'adua. The three (3) existing unions equally issued a note of warning to the Federal government on the purported termination of the implementation of CONTISS 15 before it was shelved.

Concept of Conflict

Conflict in an organization is a state of friction caused by the actual or perceived opposition of needs, values and interests between people working together that is incompatible with the wishes of the other. Ilesanmi (2017), the presence of dispute over series of organization experiences, like differences in goals, beliefs, perception, and shared valuables ideas and more. Conflict as a subject occurs when someone felt that his/her opinion or position has been trampled upon. It could be a result of the employer's decision to maximize gain. To maximize profit by the employer a continuous search is encouraged, the employee representative is committed to ensuring a continuous and enhanced living condition for her members. When one noticed that is important for the parties involved, and they seem to think that their interest is endangered by the opponent (Abiodun, 2014). It leads to a reduction in employees' turnover, dislocation of the entire group and polarisation, it also reduces productivity on job performance, psychological and physical injury, emotional distress and inability to sleep, while interfering with problem activities, escalation of differences in antagonistic position and malice and increased hostility (Akanji, 2005). Through effective conflict management, a conducive working atmosphere is created for promoting opportunities, encouraging innovation and movement directed towards non-violent reconciliation of basic clashing interests.

In my own opinion, conflict can be defined as an unethical and hostile condition in an organisation that brings about disagreement and chaos it may lead to disunity and counter-reactions between the management, unions and employees at various levels, thereby causing inefficiency to the system.

Management of Workplace Conflict

Workplace conflict is described as the presence of discord that occurs when goals, interests or values of different individuals or groups are incompatible and frustrate each other's attempt to achieve objectives in an organization (Kazimoto, 2013). According to Uchendu, Anijaobi and Odigwe (2013), explains that conflict is inevitable in organisations, its management determines whether it will generate a positive or negative impact on the organisational performance. The timely recognition and immediate explication of the underlying crises before the conflicting issues go out of hand are germane to effectual management of conflict in the workplace. Managing conflict does not necessarily connote avoidance or termination but the decrease of the odds of non-productive aggravation. As such, conflict management is the method by which organisations and people handle grievances or disputes to find a middle way alternative to increase resolution, work towards consensus and offer a genuine commitment to decision-making.

Subsequently, conflict management orientation is a highly noticeable process that can be implemented in various ways in organizations. Ford (2007), postulated a four-way process that includes assessment and investigation, design, implementation and review aimed at achieving effective and goal-oriented decisions in the workplace. This integrative style is often used to encourage management to satisfy the desire of stakeholders in the resolution of disputes. Vigil and King (2000), viewed that the use of an integrative style of controlling conflict is likely to produce a better result and higher dedication in individuals than groups using non-integrative conflict management. The integrative style widens the understanding of the conflict issues and increases resolution.

In addition to the above, the collective bargaining style has been suggested as the style for managing union versus management conflict in organisations. The style is internationally approved as the legal instrument by which workers and stakeholders settle disputes arising from employment contracts (Fajana and Shadare, 2012). In recent times, faster rates of adoption of collective agreement approaches have been encouraged in Nigeria by the Trade Union Amendment Act (2000), and by the positive use of this machinery for resolving conflict by some multinational corporations in the country. In practice, the collaborative style of managing conflict, involves negotiation between unions and stakeholders as a way of meeting demands, deliberating, presenting counter orders, intimidating and sometimes frightening all in a bid to reach a collective agreement.

Thomas (1976), presented some methods for managing disputes. These are avoidance, accommodation, competition, compromise and collaboration. The avoidance strategy is called conflict avoidance. Any organisation using this method is taking a dangerous risk. The accommodation strategy believes that no amount of appeasement could be too much to allow peaceful coexistence. It is a palliative method that involves capitulation and appeasement. The competition method involves the survival of the fittest and win-lose method, without considering other parties in question. In the compromise method, parties involved are willing and desire to give up something to reach a desirable term of the agreement in the discord. The last strategy is collaboration which is a win-win method, parties in dispute are fully prepared, willing and ready to satisfy each other's requests. However, the collaboration strategy is a reflection of behaviours that are both cooperative and affirmative, other methods relied majorly on the constitution of the organisation, because they provide a momentary solution to the conflict situation.

Another conflict management approach for resolution of conflict in Nigeria is offered in the provision of the Trade Disputes Amendment Decree, 1988, No. 39 and Trade Dispute Act CAP 18, 2004 which provided five steps for the legal management of conflict in organisations in the country. These are voluntary settlements of conflict using internal machinery of grievance procedures and the external machinery involving the appointment of mediator, conciliator and referral of disputes to an industrial arbitration panel, National Industrial Court and the constitution of a Board of Inquiry if such is considered necessary. In conflict resolution, the award of the National Industrial Court is final and binding on the employees and employers from the date of the award in the country.

Employee Commitment: Employee commitment has to do with the level of loyalty and identification an employee has for the organisation he is working for. It is that which makes an employee give the best to ensure that the organisation performs well. Ming-Huei (2007), opines that employees' commitment is an employee's identification with the organisation and his psychological support to its mission (Anthony, 2017).

Theoretical Review

Mediation Theory (1991)

Mediation theory is a theoretical model developed by Professor Jean Gagnepain in 1991. He was a French linguist and epistemologist. The theory contains four strands: conflict objective, degree of conflict severity, the bargaining process, and result. The practice appears to justify and modify divergent opinions of practice and result in a singular view of reconciliation.

Mediation is a non-adversarial conflict resolution process that encourages joint problem solving, assists both parties to identify alternative solutions to their problem, and promotes effective communication between both parties. While both the complaint process and the hearing process typically result in a win/lose relationship between the parties, the mediation process, if successful, typically results in a win/win relationship through the development of a mutual and agreeable solution. However, despite the good assumptions of this theory, a scholar like Professor Wade criticized it based on the phrase ''inequality of bargaining power'' as not being mediation per se but consensual and exacerbated.

Empirical Review

Tamunomiebi and Azuka (2019), assessed the relationship between accommodation strategy and workers' endurance of oil and gas servicing industries in Port Harcourt, Nigeria. The study

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used a cross-sectional survey in the assessment of the variables. The primary data was developed from a structured questionnaire, the population of the study was 250 workers of seven (7) selected servicing oil and gas industries in Port Harcourt. The sample size of 154 was determined using Taro Yamanes' formulae for sample size determination. It found out that there was a significant relationship between accommodation strategy and workers' endurance of the oil and gas servicing industry in Port Harcourt. The study recommends that stakeholders and workers of the oil and gas servicing industry should try and accommodate conflict situations to achieve harmony since it has been justified that accommodation has a positive influence on employees' adaptability and pro-activeness.

Zahid, Zahra, Amjad, Mukhtar, Hamza and Athar (2019), examined the way conflict settlement and procedural justice can affect workers' performance in the academia of Pakistan. The study adopted a quantitative method and 322 workers were used as sample size, at varied ranks in the institutions. The study used the correlation technique of data analysis, and different tests regression, instruments were tested. The results of correlation show a significant relationship between all of our three variables. The outcome showed that there was a significant relationship between all the variables. Therefore, organizational performance and conflict management strategies adopted by stakeholders and perception of procedural justice are useful.

Akanbi, Abdulraheem and Ajeigbe (2019) in their work titled conflict management dynamics and job satisfaction in the Nigeria health sector. The study adopted a qualitative method using thematic analysis. The study population is eight (8), the study found that most workers are dissatisfied as a result of leadership tussles, pay structure and reward system leading to low job satisfaction. It, therefore, recommended that organisations should ensure adequate manpower planning career development and a good welfare package for the healthcare professionals.

El- Rahman, Hosny and Ata (2018) assessed the relationship between conflict management styles, affirmativeness and weakness among nursing students. The thesis was carried out at the school of nursing, Zagazig University, a descriptive correlation design was used. A stratified random sample of 424 nursing students was employed. Data collection was done using a tool that consisted of four main parts. Demographic data, The Rahim Organizational Conflict Inventory-II (ROCI-II), students' assertiveness, and nursing students' stress index. Study results showed that 84.2% and 84% of nursing students used collaborating and compromising conflict management styles with their clinical instructor. The study concluded that there was a positive statistically significant correlation between nursing students' total assertiveness score and their use of all conflict management styles with their clinical instructors. The study recommended that nurse educators should conduct workshops about stress management and coping strategies for the nursing students and students should practice assertiveness in the real-life and determine the appropriate ways of asserting themselves.

METHODOLOGY

Also, the data for the qualitative aspect was collected from respondents through interviews which were recorded by electronic midgets and were transcribed, edited and organised to understand issues that arose therein. Consequently, Nvivo 12 software was used to analyse data collected which brought out themes, sub-themes and sub-sub themes.

Table 1: Respondents' Background Information

S/N	Informants' codes	Department/Unit	Mode of Interview	Date of Interview
1	**Res1**	Works	Telephone	11th June 2020
2	**Res 2**	Business Admin.	WhatsApp	12th June 2020
3	**Res 3**	Registry	WhatsApp	13th June 2020
4	**Res 4**	Engineering	Telephone	13th June 2020
5	**Res 5**	Mass communication	Telephone	24th June 2020

Source: (Author's Compilation, 2020)

The study explored the opinions, experiences and perceptions of staff of Federal Polytechnic Offa. The aim was to complement the findings and to transcribe the result analysed in line with the submissions of Creswell (2014). The respondents consist of five senior members of the staff of the institution. The study strictly adhered to ethical considerations before, during and after the interview as verbal consent was sought. As a result of the COVID 19 pandemic that spanned almost the whole of the second quarter and the third quarter of the year 2020, the institution was under lock and key. Also, all the interviewees were informed of the objectives, procedures and confidentiality ensured of the report. Each participant had been assured that neither name nor any other means identified that could reveal their identity at any time, during and after the analysis of this study. Given this, in the analysis by code, as shown in Table 1, each of the respondents was identified as pseudonyms representing the senior staff interviewed to prevent identification and protect confidentiality.

The main objective of this study is to examine the effect of accommodation strategy on employees' commitment in tertiary institutions in Kwara State, Nigeria. Therefore, findings that are based on the responses were presented here.

The interview data were analysed using Nvivo software for the thematic analysis. The thematic approach allowed analyses to be presented in themes, sub-themes and sub- sub-themes as well as in graphical models in which the five respondents' viewpoints and actual words were portrayed systematically.

Answers to the questions were generated through an organized and systematic manner in a prolonged engagement with all the informants, and the standardization of the field notes and recordings. The emerged answers were therefore processed and presented in this section of the chapter through Nvivo in themes, sub-themes. Consequently, the process generated three (3) themes, and six (6) sub-themes, respectively. Therefore, figures 1 and 2 presents all the main themes and sub-themes, while it also shows the thematic analysis of the study based on data collected from the in-depth interviews conducted with staff of Federal polytechnic Offa, Kwara State, Nigeria.

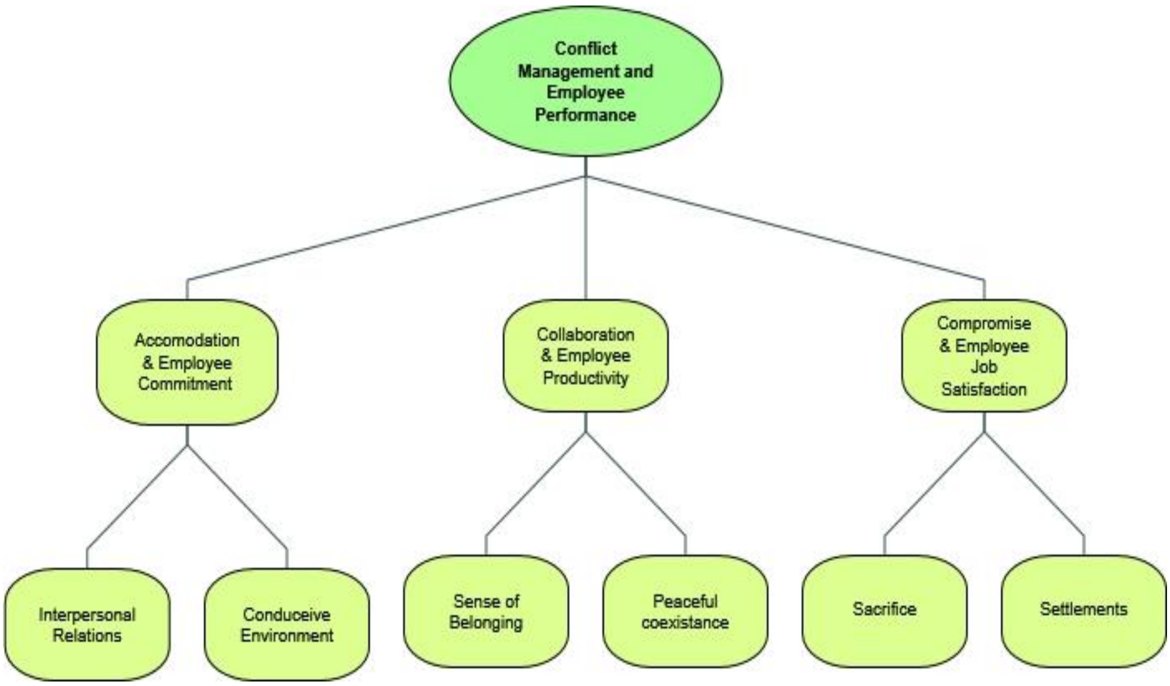

Figure 1: Thematic Analysis of conflict management and Employee performance
Source: Nvivo 12 Outputs 2020

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The population of the study comprises 616 members of staff, while five (5) senior members of staff of the institution were selected for the structured interview. This was as a result of the COVID 19 pandemic that spanned almost the whole of the second quarter and the third quarter of the year 2020, hence the institution was under lock and key. Also, all the interviewees were informed of the objectives, procedures and confidentiality ensured of the report.

Theme One: Accommodation and Employee Commitment

As part of the emerged themes, this study has explored the perceptions of the staff on the effect of accommodation strategy of conflict management and employee commitment. The following off-shoot surfaced as sub-themes: Interpersonal relations and conducive environment. Nonetheless, this theme was described by Res1 as "Accommodation strategy affects the employees' commitment positively as it improves the learning environment; it makes it conducive for lecturing".

In addition, Res.1 described the effect of accommodation strategy on employee commitment as:

> *It affects employees due to different opinions and perspectives of workers and unions that are made up of polytechnics, this affects because the unions may on behalf of the staff accept the term of accommodation which might not suit the interest of the entire members*

Collaborating this, Res4 described his understanding of accommodation and employee commitment as:

> *Employees derive satisfaction with the use of this strategy, it is a give and takes issue, meaning that the employees will take to the management directives and the management, in turn, responds to the employees' demand.*

Similarly, Res5 notes that *"The strategy is a positive one; it gives room for acceptability as no one is perfect. It enhances the smooth relationship and further cement a peaceful co-existence". Thus the degree of responses is highlighted in figure 2….*

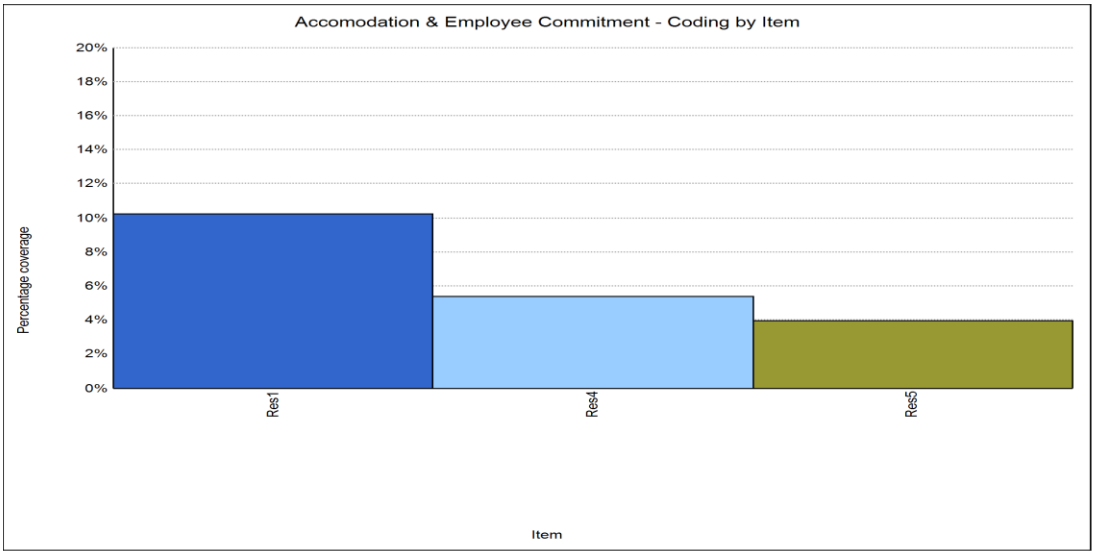


Figure 2
Source: Nvivo output (2020)

Sub-theme: Sense of Belonging

According to Res2 "Collaboration strategy influences the productive capacity, seeking and welcoming employees' suggestions during the conflict it enhances improvement".

Similarly, Res3 added that:

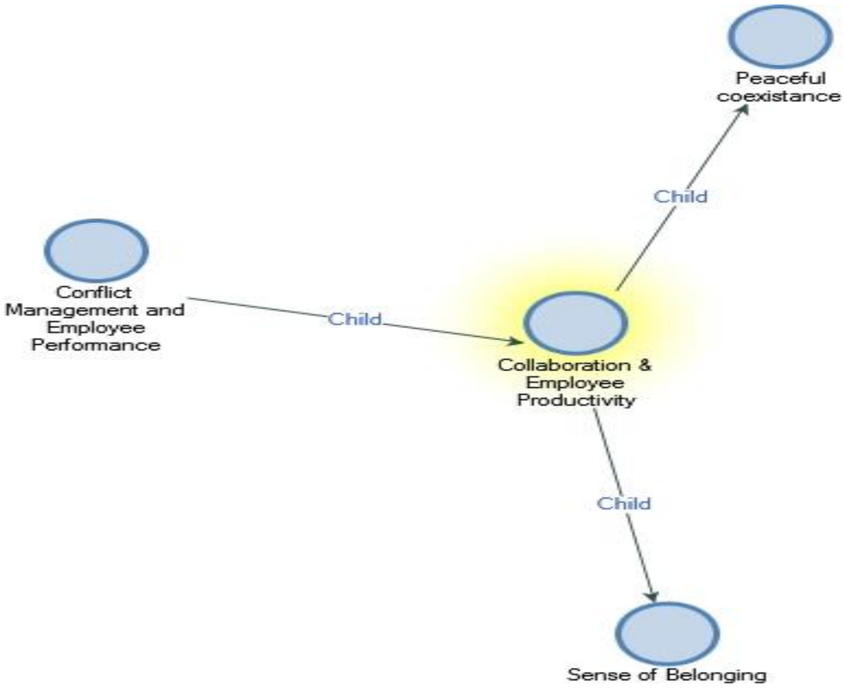
It affords the employee the opportunity of being an active member of the institution/organization

Peaceful Co-existence

On sub-theme peaceful coexistence, Res 2 responded that:

The strategy of collaboration enhances the productive capacity of an employee, as coming together in an agreement can be a great tool for productivity.

While Res3 concluded that: *Comparing and contrasting different views and opinions will give direction to the best-suited ideas to adopts and it encourages peaceful co-existence*



CONCLUSION AND RECOMMENDATIONS

From the study, it was discovered that accommodating strategy has a significant effect on employees' commitment as well as other variables. In addition, the results of the thematic analysis also revealed that there is the need for diverse opinions, interests and perspectives to be accommodated and harmonised in order to drive the commitment of employees. It also helps to create a conducive environment which in turn nips conflict in the bud. It was thus concluded that if all tendencies in conflict are adequately accommodated by policymakers it will lead to employee commitment at the federal polytechnic Offa, Kwara State, Nigeria.

The study, therefore, recommends that institutions should as a matter of necessity work towards accommodating various forms of opinions and demands from both the members of staff, labour unions and other stakeholders in order to get the desired level of commitment from employees in tertiary institutions.

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AN ASSESSMENT OF SERVICE QUALITY DELIVERY AND CUSTOMER RETENTION IN SMALL-SCALE BUSINESS IN LAGOS STATE

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ABSTRACT

The goal of this study was to look at the impact of service quality on customer retention in small companies in Yaba, Lagos, with a focus on hairdressing salons. The study looked at the effects of assurance and empathy, both of which are aspects of service quality (and hence client retention in small businesses). A descriptive cross-sectional design was used in the study. This research methodology was suited for this study since it aimed to give a broad picture of how service quality variables impacted customer retention in small businesses. A total of 138 questionnaires were distributed, with 115 of them being collected and used in the study. A Likert rating scale questionnaire was used to obtain primary data from consumers of chosen Yaba saloons. Descriptive statistics were used to assess demographic data, while Pearson correlation analysis was used to examine the link between service quality and customer retention. There was a link between customer retention indicators and service quality aspects (reliability, assurance, tangibility, empathy, and responsiveness) (customer satisfaction, loyalty). As a result, this research suggests that management should concentrate on service quality to increase customer retention.

Keywords: Customer; Service; Quality; Retention; Customer Retention; Service Quality

INTRODUCTION

If small companies want to keep their consumers, they must understand the value of building connections with them (Tatikonda, 2013). Small businesses must strive to increase client satisfaction by offering fantastic service to create these partnerships. Customers are more likely to be kept when they receive exceptional service, according to previous studies performed in numerous sectors (Mittal & Kamakura, 2001; Okharedia, 2013; Seiders, Voss, Grewal & Godfrey, 2005; Helgesen, 2006; Curtis, Abratt & Rhoades, 2011). It's crucial to remember that what pleases clients today could not please them in a year. Customer dissatisfaction, if ignored, can spell disaster for a company, especially if the influence of customer discontent on the organization and its profitability is underestimated over time (Tatikonda, 2013).

While recruiting and keeping consumers remains at the forefront of marketing efforts, enhancing organizational performance is also a priority. As a result, researchers and practitioners have been concerned about obtaining new clients by inventing goods that meet specific demands. The relative costs of client acquisition and retention, on the other hand, have sparked a rising interest in challenges concerning the development and management of long-term client relationships as a means of increasing profitability.

Although many consumer goods providers are growing increasingly interested in the concept of customer connections and customer retention, this concept of relationship marketing is thought to be of special value in the industrial and service sectors. Service quality is, without a doubt, commonly regarded as a critical antecedent to successful client relationships.

This is especially true in the service industry, where quality can be difficult to duplicate and hence may serve as the foundation for a long-term competitive advantage. Offering a superior service that the competitors cannot match gives customers an incentive to choose and stick with a certain supplier. A service offer that is substandard or ambiguous, on the other hand, may have more difficulty attracting clients and a higher risk of desertion.

As a result, service quality may, in theory, offer the foundation for increased loyalty, retention, and commercial performance. Excellent service quality distinguishes one small business from another. In addition, it is necessary for profit and survival. One of the tactics for retaining clients is to improve service quality. Customers have grown more quality-conscious, and they demand high-quality service from all providers (Lee & Hwan, 2005). Small businesses must give outstanding services to their clients to maintain a sustained competitive edge. When contrasted to the cost of maintaining existing customers, the cost of recruiting new consumers to replace those that the small business has lost is quite high (Reichheld & Kenny, 1990). Longer-term consumers also spend less time learning about new items, buy more, and spread the favourable word of mouth, perhaps leading to more customer referrals and therefore boosting the firm (Healy, 1999).

Customer satisfaction is the feeling that comes from people who have had their expectations met by a company's performance. Many academics and researchers stress the importance of consumer happiness. Customer satisfaction, according to several academics, has a favourable impact on an organization's profitability. Customer happiness, loyalty, and retention are all linked in a good way, according to a large body of data.

Unfortunately, according to Kurtz and Clow (1998), despite service organizations' best efforts to recruit consumers, manage supply, demand, and productivity, and deliver high-quality service, consumers may not always remain loyal. Customer retention is the subject of the vast bulk of empirical research (Abdullah & Arokiasamy, 2013; Akbar & Parvez, 2009; Angelova & Zekir, 2011). Most organizations believe that implementing customer retention initiatives will minimize the rate of defection; however, customer happiness does not always equate to client retention. It is crucial to establish a relationship or connection between the firm and the client, to understand the consumer, to implement a monitoring system, and to resolve any problems as soon as possible before they become significant. Busili (2014) performed a study on the service quality dimensions employed by small scale firms in Nigeria, concluding that small scale firms need to enhance their approach as a result of increased competition for similar services.

Objectives of the Research

The broad objective of this study was to assess the effect of service quality on customer retention in small-scale hairdressing saloon enterprises in Yaba, Lagos. The specific objectives were to:

i. examine the effect of assurance on customer retention in small-scale enterprises.
ii. examine the effect of empathy on customer retention in the selected enterprises.
iii. examine the effect of responsiveness on customer retention in the small-scale enterprise
iv. examine the effect of reliability on customer retention in the enterprises.
v. examine the effect of tangibles on customer retention in small-scale enterprises.

LITERATURE REVIEW

Service Quality

A customer's evaluation or opinion of an entity's overall excellence or superiority of service is described as service quality (Parasuraman, Zeithaml, & Berry, 1988). Researchers have created

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multiple conceptual models to describe the underlying structure of service quality and to quantify customers' perceived service quality in various sectors during the last two decades. According to Bitner (1990), service quality is defined as the client's overall opinion of the organization's and its administrations' relative inadequacies. Service quality, according to Ananda & Devesh (2017), is a philosophy that speaks to long-term general administration. Service quality is a state of mind that is connected to, but not proportional to, the fulfilment of outcomes from wishes and execution assessments (Bolton and Drew, 1991)**.**

Client and administrative supplier collaboration is managed through service quality. Clients' expectations for an administrative experience influence their assessment of the service's worth. A quality fissure develops when an administration provider fails to notice and satisfy their client's need aurally.

Dimensions of Service Quality

→ **Reliability:** This is the level of consistency and accuracy with which a promised service is delivered. This describes how services are delivered in a consistent, reliable, and accurate manner across time. Based on various experiences, it is possible to conclude that the most crucial aspect of service delivery is dependability. Customers expect you to deliver what you promised when you promised, and to the standard you promised, which may include: performing services correctly the first time, providing services to students on time or sooner, handling customers' service problems consistently and dependably, and informing students about when services will be performed (Ananda & Devesh) (2017).

→ **Responsiveness:** This is the willingness of service providers to assist consumers and offer quick service." In these areas, speed, understanding demands, and adaptability are critical, as are: willingness to assist consumers, ready to answer to customer demands, rapid service to consumers, and rapid reaction to student demands.

→ **Assurance**: This metric measures how informed, pleasant, and capable of inspiring trust and confidence service providers are. Students are inspired by the confidence and preparation of personnel who display a high degree of expertise and common politeness. Staff who are consistently welcoming and courteous to customers, staff who have the knowledge to answer customers' questions, staff who can instil confidence in customers by being confident themselves, and staff who make customers feel safe in their transactions with the service are all examples of assurance (Ananda & Devesh, 2017).

→ **Empathy:** Everyone likes to feel unique and cared for, and an individualized approach to consumers may help you manage expectations and provide excellent service. It may be defined as the extent to which clients are given caring and personalized attention. Even if you are unable to provide exactly what the student requires (which some of our rules and regulations make likely), they can see that you have tried and do appear to care by giving customers individual and engaged attention, staff who deal with customers in a caring manner, staff who have the customer's best interests at heart and assist them in meeting their objectives, and staff who get to know the needs of a customer.

→ **Tangibles:** Finally, tangibles refer to how well physical facilities, equipment, and staff appearance are maintained. Despite its low ranking, this component should not be neglected. The service's tangible proof carries significance.

Customer Retention

In today's competitive economic climate, customer retention is a cost-effective and lucrative company approach (Simanjuntak, Putri, Yuliati and Sabri, 2020). Customer retention, by definition, is the action a firm engages in to keep consumers from defecting to competitors.

Customer retention begins with the initial contact and continues throughout the relationship. Client retention has several advantages, including improved income, decreased customer acquisition expenses, and greater recommendations. As the expense of obtaining new customers and accounts rises in the small business sector, as does competition for deposits and the fees connected with them, small businesses are paying greater attention to the number of customers and accounts they're losing (Mbithi, 2013).

In a research titled "The Meaning and Measurement of Customer Retention," Aspinall et al. (2001) demonstrated that, despite the extensive emphasis devoted to customer retention in the academic press and elsewhere, much of it was absent in practice. According to their findings, many organizations that profess to value client retention as a key business goal fail to adequately define or quantify it. According to their findings, firms who are serious about improving customer retention should first define it explicitly and use operational measurements that show them if they are making progress.

Relationship between Customer Service Quality and Customer Retention

Indeed, from a managerial standpoint, investing in service quality and the development and maintenance of client connections can only be justified if it leads to increased profits (Sharma, 2008).

The concept and assessment of service quality are well-documented (Gronroos, 1984; Parasuraman, Zeithaml, and Berry, 1985,1988; Teas, 1993), but the relationship between service quality and organizational performance has received less attention (Thorpe,1994).

Several factors have been recognized as having the ability to improve or increase client retention rates. Senior management commitment, customer-focused cultures, a well-targeted marketing strategy, and the discovery of switching obstacles are some of these aspects (Marinkovic, 2013). Customer service representatives' intentions and behaviour may have a significant impact on retention. Internal marketing is critical to the development of this mutually beneficial connection (Gronroos, 1991). By improving employees' perceptions of their position and relevance inside the organization, a good internal marketing strategy aids in the creation and maintenance of a customer-oriented service culture. In view of Reichheld and Kenny's (1990) and Clark and Payne's (1993) arguments, internal marketing efforts aimed at establishing and maintaining customer awareness must be a key component of any customer retention plan.

Knowing your customer is a competitive advantage tactic employed by service businesses. Customers are served directly by the majority of service organizations, allowing them the opportunity to form long-term relationships. It's easy to classify clients and keep track of them because they're served individually. Because of the competitive climate, small scale firms must separate themselves from other small scale firms by delivering high-quality services. When a client is pleased with the outstanding administration, client devotion is achieved (Caruana, 2002). The success of a service provider is determined by the administration supplier's relationship with the customer (Panda, 2003). Service providers are distinct from manufacturers. Customers participate directly, services are consumed immediately, services are supplied at the customers' convenience, and intangibility is all issues that service providers face. The service quality dimensions include reliability, assurance, tangibles, empathy, and responsiveness, with reliability being the most important.

The value of such distinctions to organizations in the near run may be questionable. Indeed, the 'somewhat loyal' consumer may have more in common with the non-loyal consumer than with the 'wholly loyal' client in terms of attitude. Furthermore, the 'partially loyal' consumers' lack of a favourable relative attitude may imply that potential advantages from favourable word-of-mouth are not achieved. The 'partially loyal' clients, on the other hand, are a fascinating and

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valuable group from the organization's standpoint. They are the group most at danger (most likely to defect), but they may be watched and approached since they have a relationship with the organization, and it may be feasible to convert them from 'somewhat loyal' to 'wholly loyal' through that relationship.

The evidence demonstrating the impact of service quality in customer loyalty and retention comes in many different forms. Bolton and Drew (1991) emphasize the relevance of service elements in connection to consumer ratings of service quality in longitudinal research. However, assuming that relationship marketing necessitates the integration of marketing, quality, and customer service, the relevant dimensions on which a product or service is evaluated will typically include not only the core product features but also the full range of associated benefits offered to the target customer.

This apparent separation between the physical product and the whole product offer is extensively employed in the service industry, where it is common to distinguish between the service's end (technical quality) and the method by which it is given (functional quality) (Gronroos, 1984, 1993; Bowen and Schneider, 1988; Lehtinen and Lehtinen, 1991). The necessity for such a separation stems in part from the difficulty of intangibility in connection to customer service ratings (Zeithaml, 1981), but it is also a result of the importance of the "people" component and the challenges involved with maintaining consistent quality (Parasuraman, Zeithaml and Berry, 1985). The two primary characteristics of service quality are then presented as functional and technical quality, with corporate image sometimes added as a mediating variable that impacts perceived quality (Gronroos, 1984). Consumers often have a harder time evaluating technical quality (Zeithaml, 1981); yet, an acceptable degree of technical quality is an important component of quality evaluations. However, it is maintained that after an acceptable level of technical quality has been attained, performance in terms of functional quality becomes a far more significant driver of total quality (Gronroos, 1993). In certain ways, technical excellence might be considered a form of cleanliness. There is no doubt that functional or process quality is more important than technical quality, as evidenced by several studies. For example, Jain, Pinson, and Malhotra (1987) emphasize the relevance of human elements of SME for small scale enterprise devoted personal consumers, but Turnbull and Gibbs (1987) emphasize the relevance of staff quality in corporate marketplaces.

METHODOLOGY

For this study, a sample of 138 customers from 26 hairdressing salons in Yaba, Lagos, were enumerated. This sample size has been calculated at a 95% confidence interval. (Muralidharan, 2014) recommends for descriptive studies a sample of 10% of the population is adequate and thus this study used a proportion of 10% of the population.

The formula used to calculate sample size:

$$n = (pqz^2) / (e^2)$$

Where: Z = Z value (1.96 for 95% confidence interval); p = percentage picking a choice, expressed as decimal; (0.10 used for sample size needed).

The sample size was calculated as outlined below:

$$n = \left(\frac{1.96^2 * 0.10 * 0.9}{(0.05)^2}\right) = (0.345744) / (0.0025)$$

$$n = 138.$$

Therefore, the number of the sample that was selected was 138.

Table 1: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items
.723	.721	15

Source: Authors' Computation (2021)

From the test of reliability carried out in Table 1, it was evident that our Cronbach's alpha is 0.723, which signifies that the data was good (fit) and reliable for the subject under consideration.

RESULTS, PRESENTATIONS AND DISCUSSION

Effect of Assurance on Customer Retention

Table 2 shows that there is a strong positive correlation between assurance and customer retention. However, since 0.000 < 0.05, we therefore reject H0. We can now conclude that it is significant There is a significant effect of assurance on customer retention in small scale enterprises in Nigeria.

Table 2: Correlation Analysis Showing the Effect of Assurance on Customer Retention

		Feel safe	Saloon fulfil my expectation
Feel safe	Pearson Correlation	1	.856**
	Sig. (2-tailed)		.000
	N	115	115
Saloon fulfil my expectation	Pearson Correlation	.856**	1
	Sig.(2-tailed)	.000	
	N	115	115
**Correlation is significant at the 0.05 level (2- tailed)			

Source: Field survey, 2019

Table 2 shows that there is a strong positive correlation between assurance and customer retention. However, since 0.000 < 0.05, we therefore reject H0. We can now conclude that it is significant There is a significant effect of assurance on customer retention in small scale enterprises in Nigeria.

Hypothesis 2

$H_{0:}$ there is no significant impact of empathy on customer

H_1: there is a significant impact of empathy on customer

Table 3: Correlation Analysis between Empathy and Customer's Retention

		Exact Style	Customers' loyalty
Exact style	Pearson Correlation	1	.922**
	Sig. (2-tailed)		.008
	N	115	115
Customers' loyalty.	Pearson Correlation	.922**	1
	Sig.(2-tailed)	.008	
	N	115	115
**Correlation is significant at the 0.05 level (2- tailed)			

Source: Field Survey, 2019

The correlation analysis carried out, reveals that the Pearson correlation value is 0.922. this means that there is an extremely positive correlation between empathy and customer's

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retention. Intrinsically, it symbolizes that the more customer gets qualitative service from their client, the more they remain faithfully and retain their interest with the client.

However, the table shows that the p-value is 0.008 which is less than the alpha value(α=0.05). Thus 0.008< 0.05. we, therefore, reject the H_0 and conclude that there is a significant impact of empathy on customer

Hypothesis 3

H_0: There is no significant effect of responsiveness on customer retention in small scale enterprises in Nigeria.

H_1: There is a significant effect of responsiveness on customer retention in small scale enterprises in Nigeria.

Table 4: Effect of Responsiveness on Customer Retention

		Best Interest	Fulfil my expectation
Best Interest	Pearson Correlation Sig.(2-tailed) N	1 115	.745** .002 115
Fulfil my expectation	Pearson Correlation Sig.(2-tailed) N	.745** .002 115	1 115
**correlation is significant at the 0.05 level (2- tailed)			

Source: Field Survey, 2019

The table above examined the significant effect of responsiveness on customer retention. The result shows that the Pearson correlation coefficient is at 0.745 while the p-value is 0.001 at 115 (sample response) the result implies that a strong positive relationship (correlation) between responsiveness and customer retention. Also, as a reason of its p-value (0.002) which is less than 0.05; therefore, the alternate hypothesis is accepted. Thus, responsiveness has a significant effect on customer retention.

Hypothesis 4

H_0: there is no significant impact of reliability on customer

H_1: there is a significant impact of reliability on customer

Table 5: Importance of Dependability for Customer Retention

		Continuity	Dependable
Continuity	Pearson Correlation Sig.(2-tailed) N	1 115	.985** .000 115
Dependable	Pearson Correlation Sig.(2-tailed) N	.985** .000 115	1 115
**Correlation is significant at the 0.05 level (2- tailed)			

Source: Field Survey, 2019

The table above looked at how important dependability is for customer retention. The Pearson correlation coefficient is 0.985, with a p-value of 0.001 at 115 (sample response). This indicates that there is a very significant positive association (correlation) between dependability and customer retention. The null hypothesis is also rejected because of its p-value (0.000), which is less than 0.05. This means that in a small business, dependability has a significant influence on customers.

Hypothesis 5

H_0: There is no significant effect of tangibles on customer retention in small scale enterprises in Nigeria

H_1: There is a significant effect of tangibles on customer retention in small scale enterprises in Nigeria

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.557[a]	.311	.242	.667
a. Predictors: (Constant), Assurance, Empathy, reliability, responsiveness, tangible.				

Source: Authors' Computation (2019)

The table above is termed the model summary and it explains the following:

→ The correlation coefficient of the model, which is used to measure the degree of association between the predictor and the dependent variable, is denoted by the letter "R." Because the correlation value is 0.557, we may conclude that the predictors and customer retention have a strong positive association.

→ The term "R Square" is used to measure the model's level of variability, which is commonly represented as a percentage (percent). In the context of the model under examination, this may be described as follows:

→ "In the regression model, the five independent variables account for 31% of the total variation in customer retention."

→ The R-squared number indicates how well the model matches our data. In this scenario, we'd say the model "very well" fits our data (in other words, the model is very good, depicting that there are few other independent variables not in our model which influence customer retention).

→ The "Adjusted R Square" statistic is a modified R-Square statistic that accounts for the number of variables in the model. Because it downward adjusts the R2 statistic when extra variables of minimal importance are introduced to a model, the Adjusted R2 statistic is often less than the R2 statistic. When the adjusted R2 statistic of one regression model is greater than the adjusted R2 statistic of another regression model, it is usual to argue that one regression model "fits" the data better than the other regression model.

→ If other independent factors are taken into account, the amount of unpredictability will be reduced by 24.2 percent.

Table 7: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.003	5	2.001	4.504	.002[b]
	Residual	22.211	50	.444		
	Total	32.214	55			
a. Dependent Variable: you will likely recommend family and friends						
b. Predictors: (Constant), Assurance, Empathy, reliability, responsiveness, tangible						

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Decision Rule

Reject H0, if p-value < 0.05, otherwise.

Since 0.002< 0.05, we fail to reject H0. Therefore, we can say that, a significant effect of tangibles on customer retention in small scale enterprises in Nigeria.

Table 8: OLS Regression Analysis Showing the Effect of Service Quality Dimensions on Customer Retention

Independent variable	β	Std. Error	ţ	Sig
(Constant)	.905	.384	1.573	.122
Assurance	.165	.109	.051	.019
Empathy	. 421	.134	.312	.046
Reliability	.261	.077	.078	.068
Responsiveness	.398	.090	4.409	.000
Tangible	.065	.146	1.128	.045
ANOVA				
Model	SS	d.f	MS	F
Regression	10.003	5	2.001	4.504*
Residual	22.211	50	.444	(.002)
Total	32.214	55		
Correlational Statistics				
Dependent Variable	R	R^2	Adj. R^2	SEE
Customer Retention	.557	.311	.242	.667

Source: Authors' Computation (2019)

CONCLUSION AND RECOMMENDATION

The purpose of this study was to look at the impact of service quality on customer retention in small scale businesses (hairdressing saloons) in Lagos. The investigation was led by the following goal: to look at the link between service quality practices and customer retention in Nigerian small businesses. To determine the association between service quality and client retention, the researchers performed regression analysis (effective communication, customer trust, customer satisfaction, price changes, level of involvement). A substantial positive association was discovered in the research. The predictors (constraints) of customer retention exhibited positive coefficients in the regression model. This means that any change in any variable will result in a significant increase in client retention. The findings reveal that service quality qualities are positively associated with customer retention, but that they are not significant in explaining retention when analyzed as a single parameter. Empathy and responsiveness may be considered as functional techniques for reducing client retention.

When consumers are dissatisfied, the stylist is compassionate and soothing, creating a sense of belonging in the consumer. Customers' attention and trust are increased by the reliability of saloon attendants, which develops strong personal connections, hence preserving customer loyalty and, in a larger sense, customer retention. As a result, we may conclude that a minor adjustment in any service quality dimension will influence whether a client stays or leaves.

In a nutshell, service quality practice encourages customer loyalty in the competitive hair salon industry, while assurance practice helps customers trust their clients and manage with time constraints.

Customer retention is a strategic operating instrument that has been prioritized. Customer loyalty improves as a result of customer retention. Customer satisfaction is the cornerstone of every successful business, as it leads to repeat patronage, brand loyalty, and the sharing of positive comments with others, all of which encourages consumers to patronize small businesses. Consumer services have a beneficial influence, and small businesses gain customer confidence. There is a strong link between service quality and the rate at which consumers return to their clients.

Quality is a crucial factor in the success, survival, and continuation of a small firm. Although there is significant disagreement among experts and academics about the characteristics that distinguish high-quality organizations and their studies, there is widespread agreement on the importance of the role it plays in the success of small businesses and their differentiation from large corporations.

Although many small firms have recently recognized the value of quality, some have yet to grasp the dimensions of the approaches that would allow them to put this notion into action. Customers' sentiments about a small business are frequently rated on the degree of product quality rather than on the business itself.

Some inferences regarding the study may be drawn from the research findings and responses to the research questions. Customer retention is favourably influenced by tangibles, reliability, responsiveness, certainty, and empathy, according to our findings. Because of the changing environment and knowledge accessible, small scale firms have attempted to deliver excellent service, but there is still space for development. Small businesses should update their service operations (in terms of appearance, i.e. tangibles) to satisfy client demands, which will help them maintain or boost client retention rates. The analytical approach that guides this research study analyzes the link between service quality and customer retention. The relevance of the study topic is supported by statistical analysis, and correlation analysis was used to test hypotheses in order to examine the link between service quality and customer retention.

According to the findings, small businesses in Nigeria were using service quality techniques in their service delivery procedures to a modest amount, which had a favourable impact on customer retention. The report went on to say that implementing service quality principles in small businesses in Nigeria has a big influence on customer happiness, loyalty, and retention. If appropriately exploited, this connection might be leveraged to ensure effective and timely service delivery in small and medium-sized businesses.

Using clear precise terms and procedures to translate the objective of increasing quality in the messaging of a small business. Customer retention might be improved by creating a fresh ambience, setting, and experience within the bar. The firm must begin working on its internal and structural issues, as well as enact necessary changes, in order to advance to a higher level of recognition.

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THE PRACTISE OF COLLECTIVE BARGAINING IN NIGERIA: ISSUES, CHALLENGES AND PROSPECTS

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ABSTRACT

The paper examined the practice of collective bargaining using Nigeria as a unit of analysis. It centres on various issues in collective bargaining, challenges confronting the practice of collective bargaining and the prospects of the practice in Nigeria. The research design adopted for this study was an explanatory research design and a secondary data method was used to elicit information for the study. It identified wages and salaries, collective agreement, procedural and substantive issues, terms and conditions of employment, industrial action, legislation, distributive and integrative matters as the major issues in the practice of collective bargaining while challenges such as weakness of trade union, NSIWC, government interventionist measures, economic recession, industrial democracy, implementation of agreement, declaration of strike as illegal were also identified in the practice of collective bargaining in Nigeria. It was concluded that in the midst of these various issues and challenges, the practice has an enviable prospect in Nigeria considering these new trends in the negotiation processes such as level of awareness, desire to honour an agreement, democracy, general level of education among leaders of the workers union, national public service negotiation council although as at today, the practice is relatively low in both public and private sector, however, to make the practice reach enviable height, it was recommended that restriction placed on some industries or group of employees to stay out of strike or trade union membership should be revisited and modernized to reflect international standard practice.

Keywords: Collective bargaining, Collective agreement, industrial action, democracy, NSIWC, strike

1. INTRODUCTION

Industrial Relations is used to explain the exchange relationship between employer and employees in the world of work where an employer is willing to offer wages and salaries to an employee for services rendered under certain conditions that are somewhat mutually agreed upon (Oginni & Faseyiku, 2017). The relationship placed contractual obligations on the part of the two parties such that the employee is available for work, protect the interest of the master, discharge duties in good faith and not take secret commission while the employer provides work, tools to discharge duties, safeguard lives of the employee and pay salary as when due (Fajana, 2009). The relationship was as far back as the 18th century which was heralded by the

Industrial Revolution where the machine was introduced as a tool to perform operational activities thus replacing manual ways of performing operational activities and this led to much industrial unrest across Europe and beyond (Fasoyin, 1987). This unrest in the industrial world of work explains why one of the focuses of Industrial Relations is to ensure industrial harmony and peace because the interest of the employer and that of employees are at variance. Looking at these examples, the employer's concern is to maximise profit while that of employees is to maximise benefits from the organisation. Employer demands prompt resumption to duty and encourages late closure daily while employees expect the employer to understand why coming behind scheduled resumption time and wants to close early. However, be willing to close late provided it will be paid for and vice versa (Oginni & Faseyiku, 2017). In order to provide a world of work where the two opposing interests could be streamlined, was what gave birth to the term "collective bargaining." This term is embedded in the belief that two opposing parties with conflicting interests can come together and resolve their differences amicably without any imbalance feeling on the part of the two opposing parties (Bamiduro, 2008; Ayodeji, 2017). Collective bargaining thus becomes a tool to establish harmonious labour relations in the workplace and this is the rationale behind the tag 'nucleus' of Industrial Relations.

Ugbomhe and Osagie (2019) opined that Industrial Relations as a concept sees collective bargaining as a structure or an apparatus of industrial governance where a functional relationship is a hallmark in an organisation and an avenue for employer and employees to engage in dialogue by negotiating terms and conditions under which parties to contract of employment will discharge their duties and responsibilities. The result of negotiation between employee and employer is usually an agreement that is neither personal nor individual rather it is collective and this explains why such agreement is called collective bargaining. It is a collective effort from a group of representatives on behalf of employees and delegates representing the employer. Collective bargaining is however feasible where there is a trade union and also the prevailing condition in Industrial Relations practice is pluralism and system theory as postulated by Dunlop which sees divergent views as a welcome phenomenon as against the unitary theory of Industrial Relations that encourages individual bargaining. Collective bargaining is universal in practice and this was one of the reasons why it was enshrined in the International Labour Organisation (ILO) Convention on Collective Bargaining of 1948 (No 87, Article 2 and 3) and 1949 (No 98 Article 1 and 2). The convention guaranty right to organize and conduct collective bargaining without any victimization or vendetta. However, the ILO Convention on Collective Bargaining of 1981 (No 154 Article 1 -17) which was adopted in Geneva in 1981 but came into force or operation in 1983 was more comprehensive than the previous ones in terms of scope, application and methods as well as promotion. Nigeria was among many countries that signed the treaty of the convention thus, becomes binding on the country.

2. LITERATURE REVIEW

2.1 The Concept and Definition Collective Bargaining

The origin of collective bargaining could be traced to 1891 when it was first used by Beatrice Webb and later used by Sidney Webb the same year to mean collective negotiations and agreements that had existed since the rise of trade unions during the 18th century. It was seen as the direct opposite of individual bargaining which is prevalent in unorganized trades where an individual workman applying for a job accepts or refuses the terms offered by the employer without communication with his fellow workmen and any other consideration that the exigencies of his position. However, where a group of workmen concert together and send representatives to conduct the bargaining on behalf of the whole body instead of the employer making a series of separate contracts with isolated individuals. The implication was that collective bargaining thrives where trade unions have roots and by extension, the collective agreements reached through collective bargaining somewhat found in operation in organizations without trade unions most especially when such agreements were back with legislation e.g. minimum wage (Ayodeji, 2017). Since the time the term was coined, it has received the attention of many scholars in terms of meaning, definitions, scope and challenges.

The term collective bargaining has been described by many scholars in many different ways and a few of these definitions were presented below:

i. ILO Convention on collective bargaining of 1981, No. 154 Article 2 described the term *collective bargaining* as that which extends to all negotiations which take place between an employer, a group of employers or one or more employers' organisations, on the one hand, and one or more workers' organisations, on the other, for--
   (a) determining working conditions and terms of employment; and/or
   (b) regulating relations between employers and workers; and/or
   (c) regulating relations between employers or their organisations and a workers' organisation or workers' organisations (Oginni & Faseyiku, 2017).

ii. Ayodeji, (2017) described collective bargaining as a method adopted for the resolution of industrial problems between the representative of the employer and the freely designated representatives of the employees acting collectively with a minimum of government dictation.

iii. Ogundele, Alaka, Oginni and Ogunyomi (2013) described collective bargaining as those formal and informal processes of accommodation through which an employer or a group of employers and their organized workers attempt to establish a mutual set of relationships which will allow them to achieve their respective goals.

iv. Rose (2008) sees collective bargaining as the process whereby representatives of employees and employers determine and regulate decisions concerning both substantive and procedural issues within the employment relationship.

v. In the views expressed by Otobo (2005) collective bargaining is a phrase that stands for or represents the totality of relationship among and between the actors in the industry how these relationships arise and how the rules, regulations and conventions are developed to govern the conduct of all parties.

Above are few descriptions of what collective bargaining is as put forward by different scholars although the list of scholars on collective bargaining description could be exhaustive. However, it was crystal clear that the choice of words made is different but the meaning in terms of contents and purposes is the same and the rationale behind this was that most of the scholars used the work of Sidney Webb as the basis of their perspectives. Therefore, collective bargaining is a bipartite in nature, a medium of interaction, a continuous process, group action-oriented, mechanism for resolution of differences among actors in workplace and agreement reached is beyond individual’s level (Plant and industrial, state and nationwide), a form of industrial democracy, as well as worker’s representatives, usually trade union, complementary activities, flexible but not rigid and a form of human relations practice.

It is therefore not out of place to say collective bargaining is a mechanism used by parties to industrial relations (labour and management) to set rules that govern their relationship from the point of entry to the point of exit. These rules set were not by mere rules of thumb but achieved rule-setting through a formalized process and negotiation is the nucleus of collective bargaining. Negotiation in collective bargaining is a strategic discussion that resolves an issue in a way that both parties find acceptable. A method by which labour and management settle differences. All the parties to industrial relations try to avoid unnecessary arguments but agree to reach some form of compromise. Negotiations involve some give and take (Chidi, 2010).

2.2 Issues in Collective Bargaining

The central focus of the issue in collective bargaining has always been on relationships emanating from the contract of employment that exists between employers and employees. The contract of employment in question was in respect of a contract of service where the relationship between employer and employee was that of 'master' and 'servant' although it is on the very rare occasion that it has implication on contract for service. The following were the main issues in collective bargaining namely:

a. Wages and Salary matters
b. Collective Agreement
c. Procedural and substantive matters
d. Terms and Conditions of employment
e. Grievances handling
f. Industrial Action
g. Trade Union
h. Distributive and Integrative matters
i. Legislation

a. Wages and Salaries Matters

Wages and salaries matters are an integral part of collective bargaining. In simple terms, this is the amount of money being paid to employees under a contract of employment usually on a daily, weekly or monthly basis. What is being paid is a function of many variables such as State legislation, demand for and supply of labour, the relativity of skills, ability to pay, trade union pedigree, cost of living, prevailing wage rates, job requirements etc. These variables play a significant role in the negotiation process of collective bargaining and whatever that is arrived at as wages and salaries to be paid would have considered all these variables at different intervals.

b. Collective Agreement

Collective bargaining is far from individual bargaining because it is wider in scope. Any agreement that is a product of the negotiation process of collective bargaining that involves worker's representatives and employer or their representatives is termed as a collective agreement. The level of the wideness or scope of collective agreement could be plant level, industry level or State level as this could be inferred from the composition of the negotiating unit or team. A collective agreement usually covers but not limited to the following wage rate, hours of work, overtime conditions/pay, sick pay/leave, procedure for dispute settlement, living wages, working condition incentives payment, retirement benefits, promotion criteria, layoff conditions, health and safety (Chidi, 2010). The Trade Dispute Act (1976) section 3 stated that all collective agreements relating to terms and conditions of employment should be in written form for interpretation and implementation to enhance industrial peace and harmony (Oginni & Faseyiku, 2017).

c. Procedural and substantive matters

The term Procedural and substantive rules were first coined by Allan Flanders an apologist of J.T Dunlop in his contribution to Industrial Relation which was described as the study of the institution of job regulation. By procedural matter, it was meant to be rules relating to the methodology of operation on various activities in the world of work. it centres on periodicity

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of activities, contract renewal, dispute settlement procedure and other modalities and by substantive matter, it was meant to be rules relating to financial matters in the world of work. it covers issues such as wages and salaries, workings hours etc. (Ugbomhe & Osagie, 2019). To sum up the views of Fajana (2009) on this, Fajana opined that the workplace is governed by a network or web of rules and regulations which is usually contained in an employee's handbook. Collective bargaining is at the centre of all the activities in procedural and substantive matters and it is ever dynamic, flexible and has a process. The success on these matters has been evident in the negotiation of the collective bargaining process through joint authorship of rules. Oginni and Faseyiku, (2017) opined that employers and employees are always willing to obey and act according to rules and regulations that were jointly agreed as against unilateral rules of the management

d. Terms and Conditions of employment

The two terms are quite relative, similar and always written together but not the same in meaning and evolve from the contract of employment. Terms of employment contained the expected responsibilities and benefits of a job as a result of an agreement reached individually and collectively between an employee or their representatives and employer or a group of employers' representatives at the time or point of hiring into the organisation. These generally include job responsibilities, work hours, dress code, vacation and sick days, and starting salary etc. while conditions of employment are the physical environment under which work activities are to be carried out. The physical environment is the soul of the organisation and on many occasions, it falls under management prerogative although subject to State legislation on minimum requirements of what constitutes a safe work environment. The effect of collective bargaining is more felt in terms of employment than conditions of employment. The two terms constitute what is known as working conditions.

e. Grievances Handling

The evidence of divergent views in the workplace is an indication that the interests of employees and that of an employer may compete or conflict. Therefore, how to resolve the differences to facilitate the accomplishment of predetermined organisational objectives becomes a paramount issue because an organisation can never thrive in an atmosphere or environment of endless conflict. Ayodeji, (2017) Expression of disagreement leading to the manifestation of conflict in the workplace is not dysfunctional rather it is a positive way to reposition the organisation towards meeting predetermined organisational objectives. It is through collective bargaining that internal machinery for conflict resolution is being put in place and made known to all. It is always expected that internal machinery must first be exhausted before engaging the external means being put in place by the State that has four stages (mediation, reconciliation, Arbitration and National Industrial court).

f. Industrial Action

This is another issue that is also integral to negotiation in the collective bargaining process. Industrial action is a disruption in the daily flow of production processes of an organisation which can manifest in different forms (strike, go slow, work to rule, lockout etc.) and can be caused by any of the items in the terms and conditions of employment or external factors. In the formative stage of what constitutes a collective agreement in any of the procedural or substantive matters, the negotiators are conscious of their action in relation to industrial action (Ogundele et al. 2013). Negotiation as an instrument of collective bargaining can be used to avert or end industrial action and this explains why the activities of the actors in the industrial relations as a system are of paramount importance and the presence of threat of a strike can induce the parties to engage in continuous dialogue for a search for an agreement.

g. Trade Union

Unionism is a permanent and central issue in collective bargaining as it revolves around the activities of employees' representatives and employer's representatives. The workers' representative engages the employers' representative from time to time either to renegotiate an existing issue in procedural or substantive matters or respond to the dictate of the environment. The employees' representatives and employer's representatives have a weapon the can be used to perform a useful function by exerting reciprocal pressure upon employers and unions to reach a mutually satisfactory agreement to avoid severe losses. The exercise of this issue in collective bargaining has removed the imbalance in the power of individual workers as well as that of the employer (Olusoji, Owoyemi. & Onakala, 2014). Thus, making it possible for employees and employers to act collectively and participate in the determination of terms and conditions of employment.

h. Distributive and Integrative matters

This is a negotiation on issues that are exclusively of mutual interests and non-exclusively of mutual interests. Where victory on a particular issue under negotiation will be a win for a party and a loss to the other party which may not necessarily be in the same quantum of the percentage of win and at the same time make big any particular issue under negotiation that will be of benefit to all parties i.e. the win of a party will imply win for the other party and where the loss of a party with a mean loss for the other party. When negotiation is on issue where a win for a party is a direct loss to the other party, negotiators must embrace the spirit of "give and take" as well as a willingness to negotiate in order to reach an agreement. Similarly, when negotiation is on issue where a win for a party is also a win to the other party, negotiators must avoid unfair labour practices. Economic issues such as wages and salaries, bonuses etc. are few examples of issues that are not mutual exclusive while issues such as security and safety of human and non-human resources as well as training and development are few examples of mutual exclusive issues.

i. Legislations

In Nigeria, there are three tiers of government namely Federal, State and Local government which implies that legislation also is in three tiers. However, other tiers (State and Local) of government derived their legislation from that of the Federal government to avoid unnecessary conflict. Therefore, legislation is law made to govern the relationship between and among parties to industrial relations. The law covers all aspects of the employment relationship in the world of work such as the labour law of 1974. Factory Act of 1978, Trade Union Act of 1976 Trade Dispute Act of 1976, Compensation Act of 1987 etc. and serves as a policy guide for both employees and employers. The law does not usually set the upper limit but concern more about the lowest limit as a requirement for satisfaction and at the same time to improve worker's standard of living, avoid labour exploitation and eliminate unfair competition. These laws could also be industry-specific, sectoral or nationwide.

2.3 Challenges of Collective Bargaining

Despite the various issues in collective bargaining that made it an institution of vitality and flexibility, the following are some of the challenges confronting free flow or effectiveness of collective bargaining in the world of work such as:

a. Weakness of Trade Union
b. Wage Review Commission now NSIWC
c. Government Interventionist Measures
d. Economic Recession
e. Industrial Democracy

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f. Implementation of Agreement
g. Declaration of strike as illegal
h. Fixation of Wages

a. Weakness of Trade Union

Prior to the restructuring of the trade union in 1976 when the trade union was restructured to come under one umbrella, the union was characterised by proliferation, loose leadership and poor financial base as well as small size. After restructuring, things seem not to improve and thus hinders the degree of their effectiveness in the collective bargaining process. Contrary to the state of affairs of workers' unions, employers were better placed in terms of financial resources, quality of leadership and access to rich information (Olusoji et al., 2014). With these contrasting patterns emerging from the two parties, employers were able to dictate the tune of collective bargaining. At times, employer ignores or refuse to participate in collective bargaining process on account of the weakness of the trade union.

b. Wage Review Commission - NSIWC

Before and after independence Nigerian Federal government has been using wage review commissions/panels as an ad-hoc committee/panel on wages and salary matters up till 1993 when The National Salaries, Incomes & Wages Commission (NSIWC) was established by Act 99 of 1993 to take care of annual reviews of wages and salaries in the Public Service. These activities are periodically subjected to dictate the economic environment of the country in order to determine or adjust not only wages but other conditions of service. It is usually the outcome of the NSIWC that other tiers of government will pursue in the course of negotiating with unions at various levels (Ayim, Elegbede & Sherrif, 2011). Experiences in the last couple of decades have shown that other tiers of government and private sectors do not respect or honour this collective agreement on the ground that the outcome of the commission was being forced on them. Many do not oblige as a result of their inability to pay and as a matter of force but where they do not have a choice, many resolve to downsizing or retrenchment.

c. Government Interventionist Measures

Certain government interventionist measures besides the setting up of NSIWC have also impinged on the effectiveness of the collective bargaining process. Such measures include the proscription of a trade union, decentralization of central labour union, appointment of sole administrators to manage the activities of central labour unions etc. all these measures have had a spill-over effect on both the private and public sectors activities to put their faith in the collective bargaining process thus, weakens worker's representatives and strengthens the specialized agencies of government on labour matters (Ayim, et al., 2011). Some government policies tend to limit the scope of bargaining, for example, wages and salaries are being controlled at the national level thus placing employees in the public service at a great disadvantage and by extension determines the direction of activities in the private sector. Not only that some employees are classified under a special duty, therefore, but such categories of employees also cannot go on strike or be a member of a trade union.

d. Economic Recession

This is another major challenge in the collective bargaining system because of the sensitive nature of the prevailing economic situation in the country from time to time. The economic recession has shaken the foundation of collective bargaining in Nigeria leading to a significant decline in government revenue, increased budget deficit, inflation and weak currency (Njogo, 2012). This has implications on the bargaining power of parties to industrial relations making negotiation a little bit difficult because of available resources on the part of the employer and the employees also finding succour to decline in the standard of living (Oginni, Olabode &

Ojo, 2018). On many occasions, an agreement reached could not be implemented as an employer will come with a threat to carry out retrenchment while employees will be also given an ultimatum in respect of notice to go on an indefinite strike. Economic recession makes employers and employees suffer severe losses and the sanctity of collective bargaining is constantly undermined (Oginni, et al., 2018).

e. Industrial Democracy

Collective bargaining connotes voluntary negotiation to suggest negotiation reflecting the free will of the parties to negotiation which is the hallmark of industrial democracy. Industrial democracy affords workers participation in the decision process of the organisation and often provides an avenue for worker's representatives to share in management prerogative in an attempt to incorporate the spirit of joint authorship rules and recognition of worker's representatives on all matters (Obiekwe & Obibhunun, 2019). As of today, this is far from reality in Nigeria because the government is disposed to a unilateral fixation on any of the issues under the condition of service after which negotiation will come into being when workers' union down tools i.e. strike must be expressed before negotiation can take place and when it is done, the government hardly shifts her ground (Adefolaju, 2013).

f. Implementation of Agreement

Among the conditions necessary for effective collective bargaining is the ability of the parties to negotiate and to have the desire to negotiate to reach an agreement and implement such agreement to the letters. In Nigeria, the government sometimes reach agreements to score a political point or play to the gallery and when it comes to implementing the agreement that was considered to be mutually exclusive, the government will be dragging her foot or engage in a trading blame game. For example, the Academic Staff Union of Universities (ASUU) reached a comprehensive agreement with the Federal government of Nigeria on certain aspects of conditions of service and university's governance in 2009 and as of 2020, the agreement is yet to be honoured for proper implementation. Successive governments have been trading blames on the previous government for entering into such an agreement and thus, frustrating the collective bargaining system in the country (Ayim, et al., 2011).

g. Strike as illegal

Although the Trade Union Act of 1976 empowers workers' union to embark upon strike after due process must have been followed to avoid loss of job and avoid invocation of 'No Work No Pay' included in the clause of right to strike of workers' union but the contrary is the case. Whether the due process is followed or not, once the worker's union seems to be on collision course with the government in the negotiation process and it seems government can no longer justify their initial position, the result is for workers' union to embark upon strike to consolidate their position (Otobo, 2005). The government will compel workers' union to call off the strike and where the call by the government to workers' union was not heeded, the government will result to threatening the worker's union to invoke the clause of 'No Work No PAY' and where this fail, the worker's union will be proscribed indefinitely. The idea to declare strike illegal has further weakened the institution of collective bargaining (Bamiduro, 2008).

h. Fixation of Wages

Wages can be said to be central to union activities and thus, feature prominently in the negotiations process with management or the owner of a business organisation. Wages fixation centred on the setting of minimum wage i.e. the lowest wage that is legally payable. This is always of interest to union leaders because its beneficial effects on union constituents are one of the major ways through which the achievements of union leaders are measured (Fashoyin, 1987). Despite its importance to labour and its role as an index wage, the minimum wage has

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been little treated to collective bargaining in Nigeria. Right from the colonial era, Nigeria has never benefitted from the interplay of collective bargaining in wage determination. It started from Provincial Wages Committee and later replace with National Joint Whitley Councils. At independence (Fashoyin, 1987).

2.4 Prospects of Collective Bargaining

It is not out place to say the present state of the practice of collective bargaining in Nigeria is not satisfactory as a result of some inherent weaknesses in the institutional framework that had made trade unions weak and strengthened the specialized agencies on labour matters. However, looking at the recent developments in many areas of the labour matters, then, all hope is not lost for the collective bargaining as an institution that will promote mutual understanding between the government as an employer and her employees without leaving behind the private sector of the economy.

a. Joint National Public Service Negotiation Council

Similarly, the establishment of the Joint National Public Service Negotiation Council (JNPSNC) to ensure that collective bargaining as negotiation machinery will be of greater assistance to the government and the employer of labour in the private sector as well as workers' union and organisations without workers' union. Some of the major concerns of the JNPSNC are to correct the departure from 'partnership - in - progress' doctrine enshrined in the National Labour Policy, design appropriate means for the adoption of improved methods for the settlement of labour disputes and the development of sound collective bargaining procedure that will facilitate effective implementation of the collective agreement as well as ensuring industrial peace and harmony (Ogundele, 2013). JNPSNC operates at two different levels i.e. national and state levels.

b. General level of Education

Aside from the establishment of NPSNC, there is awareness on the part of workers' union leaders and other industrial relations practitioners in relation to the general level of education. The new level of awareness on the level of education has placed a new value on the practice of collective bargaining in Nigeria and at the same time changed the perspective of parties to industrial relations in such a way that there is willingness to negotiate to reach an agreement without resulting to strike as an option (Adefolaju, 2013). The general level of education can be classified into two namely: personal development and on the job training. The personal development affords the leaders of union the opportunities to have holistic broader views and broaden their understanding on issues by affecting their thinking process while training on the job improves how workers go about promoting the interest of their members without violating any of the existing extant laws (Adefolaju, 2013). It has also enabled all industrial relations practitioners to understand that government intervention should not be seen as unilateral and dysfunctional but to be perceived as something necessary and timely to protect the interest of the public.

c. Democracy

The sustainability of democratic processes in the country has further strengthened the practice of collective bargaining because collective bargaining cannot flourish in an environment where there is hostility or repression of views as well as a dictatorship (Obiekwe & Obibhunun, 2019). One of the hallmarks of democracy that the practice of collective bargaining will benefit from is freedom of expression without recourse to vendetta. This will enable the parties to negotiate processes to express their true opinions, perspective or belief on any issues at stake without any fear of vendetta and can also guaranty industrial peace and harmony in a business organisation. Oginni and Faseyiku (2017) opined that collective bargaining is a form of industrial democracy on account that it provides an avenue whereby workers can participate in management prerogatives and decisions on some matters affecting members directly or indirectly (Adefolaju, 2013).

d. Level of Awareness

The level of awareness on the part of both parties i.e. employee and employer have further strengthened the prospect of collective bargaining as a practice in Nigeria not only as a result of democracy that promotes freedom of expression without vendetta as long as one acted within the purview of law, the advancement in technology is another factor that has increased the level of their awareness without prejudice to any party (Oginni & Faseyiku, 2017). Technology as an agent of socialization has made communication an object of relevance in human endeavours because of their exposure to reality in terms of the amount of information at disposal of both employee and employee. They are now well informed about labour activities and movement as it is in other parts of the world.

e. Desire to Honour Agreement

The desire on the part of the government of the day to honour collective agreement will have a positive impact on the practice of collective bargaining in Nigeria now because of what the leaders of workers' unions are currently experiencing. In the past, the government who has been the largest employer of labour in the country and at the same time an umpire that regulates the terms and conditions of employment through different legislations does not have respect for a collective agreement and at best engage in selective obedience or implementation of any agreement considered to be favourable to the government (Fajana, 2009). This selective undertone to all collective agreements which were by-products of collective bargaining made many of the leaders of workers' unions lose faith in collective bargaining and on many occasions rely on strike to press home their demands but recent events have shown that there is improvement in this direction as the government sees strike to carry the negative image to their aspirations.

3. METHODOLOGY

This research work was based on explanatory research design as the nature of the research suggested and it is in conformity with the features of explanatory research. The idea of the research work was on the specificity of the information concerning variables in the research work to explain why and how phenomena occur and to predict future occurrences. Thus, informed the use of secondary data being one of the sources of data collection. Literature search was employed in the research work to include academic literature such as published articles, textbooks and professional Institutes' publications.

4. DISCUSSION

From the review of extant literature, it was evident that the practice of collective bargaining is real in Nigeria because all the activities described as issues in collection bargaining are found operational in the country although with limitations in application. This position is in support of Fajana, (2009) where it was opined that the government who has been the largest employer of labour in the country and at the same time an umpire that regulates the terms and conditions of employment through different legislations does not have respect for a collective agreement and at best engage in selective obedience or implementation of any agreement considered to be favourable to the government. The free will of workers' unions to express their position and use the strike as a legitimate weapon to press for their demands has been outlawed on many occasions the views of Bamiduro, (2008) also corroborated this and Nigeria has never benefitted from the interplay of collective bargaining in wage determination as evident in the determination of minimum wage for the country (Fashoyin, 1987), However, despite the

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variance in the application, there is ample of evidence that collective bargaining as negotiation machinery for collective agreement is gradually repositioning on account of recent changes brought about by democracy which allow freedom of expression on matters of interests (Obiekwe & Obibhunun, 2019) and general awareness in the level education across all cadres in the public sector has further strengthened the application of collective bargaining in Nigeria to meet international standard in terms of practice.

5. CONCLUSION

The art of collective bargaining has provided workers' representatives with a good avenue to express their opinions on the terms and conditions of employment in the world of work especially issues that fall within the purview of substantive and procedural rules. The scope of collective bargaining in Nigeria would become wider and more complex in the coming years because of the sophistication of parties to industrial relations and it is likely to face its stiffest challenges in the nearest future going by the actions of people in the political environment depicting a scenario of inefficiencies, inadequacies and unkept promises. These are evident in the practice of collective bargaining in Nigeria as a result of the excessive intrusion of political criteria which has replaced subjectivity with objectivity.

It is then obvious that collective bargaining in Nigeria as of today is more or less platitude than reality as it has been found to be one-sided. It is silent on the investment in both public and private sectors of the economy as it concentrates on the wages and salaries determination or regulation as well as terms and conditions of employment. Issues affecting the core functioning of operations are left with the owners without much consideration for its survival. Though there is evidence of the practice of collective bargaining in Nigeria in comparison to European countries like the UK or the USA, it is indeed very low. Therefore, the process of collective bargaining in Nigeria needs to be overhauled and resuscitated to enshrine the principle of voluntarism in order to take advantage of the prospects of collective bargaining practice in Nigeria that will build a stimulating negotiation process and repose confidence in all the parties to industrial relations.

6. RECOMMENDATIONS

Based on discussion and findings on various with respect to issues, challenges and prospects in the practice of collective bargaining in Nigeria, the following recommendations are made as a way to make the practice better:

i. The government agencies in charge of labour matters should allow workers' and employers' representatives to have input in the review of labour law in order to take care of their concerns.
ii. Government regulations should not limit the scope and the effect of collective bargaining impact to the public sector only.
iii. Mandatory training for all the parties to industrial relations which can be one in two or three years and training should be based on the need of the parties.
iv. Fiat minimum wage can be put in place but the negotiation process should be between workers' and employers' representatives to be contingent upon their respective ability to pay.
v. The collective agreement should be encouraged but must be peculiar to the nature and characteristics of each industry.
vi. The restriction placed on some industries or groups of employees to stay out of strike or trade union membership should be revisited and modernized to reflect international standard practice.
vii. Respect for collective agreement emanating tripartite discussion. There should be no room for selective implementation of the agreement.

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FEMALE BOARD PARTICIPATION AND FINANCIAL PERFORMANCE OF LISTED DEPOSIT MONEY BANKS IN NIGERIA

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ABSTRACT

The study assessed the impact of female board participation on the financial performance of Nigerian listed deposit Money Banks from 2010 to 2019. The study looked into the effect of female board members (FBM), female non-executive directors (FNED), and female chairpersons (FCP) on the financial performance (as measured by ROA) of Nigerian deposit money banks. The paper used data from published financial statements of the selected money banks in Nigeria. The study's population included 24 listed Deposit Money Banks, with 10 Banks sampled using judgmental sampling techniques. The panel ordinary least squares (OLS) regression technique was used to investigate the impact of female board participation on the financial performance of Nigerian listed Deposit Money Banks. The results from data analysis found a negative but significant association (coefficient -0.000348 with P-value of 0.0062) between female board members and listed Nigerian Deposit Money Banks' financial performance. Furthermore, the study found a significantly positive association (coefficient 0.008678 with P-value of 0.0062) between the female chairperson and financial performance of listed Nigerian Deposit Money Banks. At the same time, there was a positive but insignificant association (coefficient 0.000093 with P-value of 0.2414) between female non-executive directors and the financial performance of the selected Nigerian Deposit Money Banks. These findings buttress the fact that the degree of participation of females on the board of a bank is key to the economic results of Banks in Nigeria. The paper concluded that there is a significant effect of female board participation on the financial performance of listed Nigerian Deposit Money Banks. According to the study, listed Nigerian Deposit Money Banks should focus their efforts on increasing the number of female non-executive directors on their boards and having more boards chaired by a female director to improve financial performance.

Keywords: Female board participation, financial performance, female board member, female Chairperson.

1.0 INTRODUCTION

The promotion of gender balance policies raises complex issues, especially in the corporate world, where the demand for their financial sustainability is more acute than expected. Increasing the number of females involved in management decisions does not penalize firms, but preferably boost their financial performance, resulting in market advantages rather than legal/political constraints. The corporate board's advisory position could be enhanced by increasing the participation of females, as their diverse professional expertise, knowledge, competencies, and problem-solving skills provide valuable guidance to owners and top managers.

1.1 **Statement of the Research Problem.**

Masculinity is a complex problem in Nigeria that spans decades. Masculine is identified with leadership, power, and strength, while feminine is associated with weakness and vulnerability.

Based on the masculine mentality, females have been subjected to non-important classes in Nigeria society. The enlightened female rose to this challenge through different activism groups, especially in this social media era, but these interventions have not significantly influenced female board participation. According to Hofstede insights (Satam, Saddam & Ali, 2018), Nigeria scored 60% culturally in Masculinity and 80% in Power Distance. Nigeria being masculine indicates a society driven by competition, achievement, and success while the power distance indicates that all individuals in Nigeria society are not equal.

Institutions are always under duress from stakeholders to maintain gender-balanced boardrooms. Several research results have been published in line with the thinking that the supervisory board performs better when they are made up of different individuals. (Campbell and Minguez-Vera, 2008). Although females now constitute more than 33% of the U.S. managerial force (Bureau of Labour Statistics, 2007), empirical evidence points to the marginalisation of female at both middle and top management levels (Hillman, Shropshire, & Cannella Jr., 2007; Daily, Certo, & Dalton,1999; Helfat, Harris, & Wolfson, 2006).

There are mixed and inconclusive results from empirical research on this study. Various empirical studies have been performed on board characteristics, gender diversity and financial results of organisations, however, the relationship between female inclusion on the board is still largely unstable because, on the one hand, female participation has been found to lead to better results. (Matteo et al., 2017, Tatiana & Alexander, 2019) suggested a positive link between the female directorate and business outcome while (Sunny, Dadang, & Subuh, 2018; Akpan, 2014) suggested a negative performance effect. However, some other literature suggested no link exists between female boardroom inclusion and firm performance (Pletzer, Nikolova, Kedzior, & Voelpel, 2015; Marc, Patrick, & Carolin, 2014). Despite the earlier studies' contribution to the literature of financial performance, scanty studies focused on female boardroom participation and financial performance in developing country context, focusing on deposit money banks. this research work is significant to fill the variation in the existing literature, and due to the arising inconsistency and divided opinions on this subject matter, the author embarks on this study to proffer a reconciliation to this conflict of opinion. The main objective of the study, therefore, is to appraise the influence of female board participation on the financial performance of Nigerian-listed Deposit Money Banks

2.0 LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Agency Theory

This theory introduced by Jensen and Meckling (1976) posit a conflict of interest between the owner of a business, debt financiers and the managers arising from their different conflicting interest. It defines the relationship between the shareholder and its directors or managers by assuming that external directors are successful protectors of shareholders' interests since their actions are free from inside directors. (Terjesen, Sealy & Singh, 2009). Agency theory argues that the assumption of self-interest guiding the activity of hired rational managers who decide on behalf of the owner creates conflict because of differences in their goals and aspiration (Tyge & Oleng, 2019). Critics of agency theory are hinged on the expensive control mechanism to protect shareholders interest which may be working against the realisation of strategic decisions as well as limit managers' actions (Kultys, 2016). Despite this criticism, Adams and Ferreira (2009) Promoted this idea by arguing that female directors are stern and more active monitors, which in turn have an impact on corporate governance. However, whether tighter regulation leads to positive or negative outcomes is still questionable, so this hypothesis is not

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a valid indicator of female's relationship to financial success on the board of directors. (Carter *et al*., 2010).

2.1.2 Stakeholder Theory

Edward Freeman, (1984) built on the stakeholder theory of corporate governance and business ethics, which dealt with the morals and principles of corporate governance. The Stakeholder Theory argued that the business entity in their decision-making process must not only focus on the interest of the shareholders but also that of other stakeholders in the business whose interest will be affected by their actions (Freeman *et al.* 2010). Jensen (2001) explains that executives should take decisions that account for the interests of all partners in a company. Stakeholder theory posits that the value that is created by a business entity is what brings all other stakeholders together to work in the best interest of the organisation (Freeman, 1984). This theory was criticised on the basis that it is prone to vacuum. In their view, the organisation is an entity that could be controlled differently by various groups that lay claim to it. The firm has very few innate interests. (Bayden, 2008). Key, (1999) argues that since stakeholder theory is not specific in approach, its operation will be devoid of specific inspections and controls. There are also many versions of stakeholder theory that it is difficult to know where even to offer critiques.

2.1.3 Stewardship Theory

This theory evolved by Donaldson and Davis (1991) provides a fresh perspective for understanding the relationship between the owners of the company and management. It is an important counterweight to the Agency's theory. Stewardship Theory holds that the owner of the company assigns the management's duty to make decisions and handle the business in the shareholders' best interests. Separating ownership from regulation means that shareholders cannot exert complete control over management actions. This viewpoint on managers is based on the assumption that managers are convinced that pursuit of the achievement of owners' goal also leads to the accomplishment of their personal goals (Davis, Schoorman & Donaldson, 1997) Stewardship theory has been criticised on the premise that since it is a relatively new theory there has not been empirical proof of its performance (Dutzi, 2005). Despite these criticisms, stewardship theory notes that the maximisation of shareholder capital involves a larger community of stakeholders.

2.2 Empirical Review

To argue that gender diversity is a hot topic and research is ongoing on the phenomenon, authors such as Marek (2020) looked at gender heterogeneity on corporate boards and firm output. Data were collected from the 2015 Financial Report of the European Company. Multiple regression and quantile regression binomial models were employed to analyse all data collected. According to the findings, female presence on the board is not related to firm output in this sample. It has also demonstrated that the relationship between female board members and firm output is unimportant. According to the study, modern business societies around the world may need to increase the presence of females on boards of directors, as current econometric evidence suggests that this is not harmful to corporate results.

Another study looked at the relationship between employee representatives and the presence of female directors at the board level and the performance of the company's environmental and corporate social responsibility. The study found that there was no substitute relationship between female board members and labour representation when the interaction between the two variables was included. (Lopatta, Bottcher, Lodhia and Tideman, 2020).

Still, on gender diversity, Ramzi, Aymen and Faten (2019) appraised the connection between gender diversity and strong performance in the framework of France's enabling and voluntary institutional settings. Quantile differences-in-differences and dose-response functions were used to estimate the data collected. The dose-response function confirmed that accounting performance reached the 40 per cent threshold for female board members, which is consistent with the requirement of French law in 2017. The result showed that the French code's compliance-or-explained recommendation is likely to reduce performance for firms with poor performance. However, firm performance increases in high-performance firms, indicating that the costs of appointing more females to the board could be high for non-performing firms, followed by regulatory requirements. The study suggested that the appointment of more females is likely to lead to more effective boards and better firm performance at an appropriate level of 40%.

Likewise, Zuraina, Hanisah and Akhma (2019). The study investigated the influence of female board members on the firm's performance from 2016 to 2018. Regression analysis was used to explore the association between female board members, and firm performance and the study found a positive and consequential connection between female board members and the company's performance in Malaysia. The study concluded that, within three years of the study, females had inserted positive vibes to boost the firm's performance.

In addition, the study explored the gender diversity of the board of directors in the listed companies in Indonesia and its influence on firm performance from 2011 to 2016. Ordinary least square regression was used to evaluate all secondary data collected. The study showed that the proportion of females in the boardroom marginally improved firm performance. Firms with two or more females in the boardroom have a stronger impact on the company's performance than firms with one female in the boardroom. The study concluded that increasing gender diversity in the boardroom could benefit the firm's performance, but that benefit could be the focus of the critical mass and firm industry. (Pananda, Masripah & Bonnie, 2019).

With a specific country focus, Moez *et al.,* (2018) also investigated the association between the female directorate and the firm. A sample of 394 French firms was sampled between 2001 and 2010. Ordinary least square regression and multivariate regression was employed in data analysis. The study found that female leadership importantly increases ROA, while female leadership importantly reduces Tobin's Q. The study assumes that the characteristics of female directors (monitoring capabilities and contributions to the board's human capital) influence these associations. When these attributes were included, the findings revealed a positive relationship between the firm's performance and the female directorate, while the negative relationship between Tobin's Q and the female directorate vanished.

On gender diversity, Anderson and Wallgen (2018) also contributed to the literature and assessed the connection between gender heterogeneity on board and the firm financial performance of 100 Swedish companies listed in Nasdaq Stockholm from 2013-2016. Panel data methodology was used. The data was analysed using ordinary least square regression. As a market-based measure of financial performance, the Blau and Shannon indices, as well as Tobin's Q, were used. According to the study, the presence of one or more females has a positive impact on the firm's financial results.

Similarly, Mireira (2017) also focused on a specific country, and the study looked at the influence of female board members on firm performance concentrating on Spanish companies. The analysis of data from 36 companies listed on the Mercado Continuo Espaola stock exchange used ordinary least square and panel data regression models. The study discovered a positive and statistically significant relationship between the ROA or Tobin Q and the female on-board variables, indicating that female directors can have a positive impact on financial outcomes.

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In the context of the banks, Tornike (2016) revealed that the presence of only one female on board had a negative and consequential effect on the performance of the banks. However, if two or more females are on board, the effect will be positive and significant, meaning that gender heterogeneity matters while Meijun (2016) found that gender diversity in boardrooms is low in Asia with 7.5 per cent female participation on average in 2021 but 1.8 per cent increase in 2013. The appointment of female directors and the gender-diverse boardroom are positively linked to the subsequent firm performance. The firm's performance is the highest when two females are on the board.

3.0 Methodology

This chapter deals with the methods and techniques used to conduct this study. The theoretical framework, model specification, Apriori expectations, research design, population, sample, sampling technique and data collection methods are also discussed. Data sources used for this research work have also been addressed in this chapter.

3.1 **Model specification**

The study adopted the model specified by Onyekwere, Wesiah and Danbatta, (2019) based on agency theory which is the theoretical framework of the study.

$$ROA = f\ (BS, INED, G) \ldots\ldots(1)$$

$$ROE = f\ (BS, INED, G) \ldots\ldots(2)$$

Transferring implicit equation 1 and 2 to explicit form, will have:

$$ROA_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 INED_{it} + \beta_3 G_{it} + U_{it} \ldots\ldots (3)$$

$$ROE_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 INED_{it} + \beta_3 G_{it} + U_{it} \ldots\ldots(4)$$

Equation 3 & 4 are the same thing. The influence of gender diversity on the board is proxied using the two financial performance metrics ROA and ROE.

Where: ROA = Return on asset; ROE = Return on equity; BS = Board size; β_0 = Intercept; INED = Independent non-executive director; G = Gender diversity; U = Error term; β_1- β_3= Coefficient to be estimated.

The model is redefined as presented in equation (5) by removing the variable BS and expanding the G (gender) variable to include FBM and FCP while adjusting INED to FNED which is the percentage of females to total INED. The BS is removed to focus on female board variables.

$$ROA = f\ (FBM, FNED, FCP) \ldots\ldots(5)$$

Assuming a linear association between the variables, the above regression equation specification could be explicitly written as;

$$ROA_{it} = \beta_0 + \beta_1 FBMit + \beta_2 FNEDit + \beta_3 FCPit + Uit \ldots\ldots(6)$$

The research only adapted equation 1 since only one financial performance metric will be used as a reference for financial performance. The variables used in the model are the same but are defined differently.

Where: ROA = Return on asset; FBM = Female board members; FNED = Female non-executive directors; FCP = Female chairperson; β_0 = Intercept; β_1 - β_3 = Coefficient of FBM, FNED and FCP; U = Disturbance error term; i = number of banks; t = period.

3.2 Research Design

The study adopted the ex-post-facto research design as the data used were readily available and derived from the published annual financial reports of the sampled Deposit Money Banks.

3.3 Population, Sample and Sampling Technique

Nigerian listed Deposit Money Banks quoted as at 31st December 2019 numbered 24, which constituted the population of this research. The study used a purposive sampling method with 10 banks (Sterling, UBA, Fidelity, GTB, Zenith, Wema, Access, Union, FBN and FCMB) as samples for the 2010-2019 study period.

4.0 RESULTS AND DISCUSSION

Estimated results of The Influence of Female Board Participation on the Financial Performance of Listed Nigerian Deposit Money Banks. Table 4.1 presents the result of the Panel EGLS regression.

The R^2 of 80.71% indicated that 80.71% of the disparity in ROA (response variable) can be elucidated by FBM, FC, FNED and BCC put together (independent variable) while the remaining 19.29% is explained by the stochastic variable. The adjusted R^2 of 77.80% showed that the model has a strong power of explanation. The model indicated that at 0.05 level of significance, the F-stat is 27.68148 while the P-value of F-stat is 0.000000 which is lower than 0.05 critical value showed that the combined influence of FBM, FC, FNED and BCC have a significant influence on financial performance. The Durbin-Watson statistics of 1.922499 revealed that the model is free from serial autocorrelation problems.

Table 4.1: Panel EGLS Regression Result

Dependent Variable: ROA				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
FBM	-0.000348	0.000124	2.803845	0.0062
FC	0.008678	0.003090	2.808264	0.0062
FNE	0.000093	7.86E-05	1.179513	0.2414
BCC	-0.000005	0.000114	0.043722	0.9652
C	0.024237	0.001423	17.03256	0.0000
R-squared	0.807114	Mean dependent var		0.062459
Adjusted R-squared	0.777957	S.D. dependent var		0.054817
S.E. of regression	0.020677	Akaike info criterion		-6.265606
Sum squared resid	0.036769	Schwarz criterion		-5.900882
Log-likelihood	327.2803	Hannan-Quinn criter.		-6.117995
F-statistic	27.68148	Durbin-Watson stat		1.922499
Prob(F-statistic)	0.000000			

Source: Authors Computation (2021)

The regression result indicated that female board members and the board credit committee (FBM and BCC) had an adverse influence on financial performance. While female board members had a significant negative effect on the financial performance of listed Nigerian Deposit Money Banks, the Board credit committee has an insignificant negative effect on the financial performance of listed Nigerian Deposit Money Banks. The size of the coefficient showed that a 1% increase in female board members will lead to a -0.000348 decrease in financial performance. The probability of female board members revealed that 0.0062 is lower

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than the critical value of significance, meaning that female board members have a consequential influence on financial performance. Also, a 1% increase in the board credit committee will lead to a -0.00005 decrease in the financial performance of quoted Nigerian Deposit Money Banks. The probability of the board credit committee of 0.9652 which is also greater than 0.05 critical value of significance meaning that the board credit committee has insignificant influence on financial performance.

Furthermore, female chairperson and female non-executive director had a positive influence on the financial outcome of listed Nigerian Deposit Money Banks. The size of the coefficient of female chairperson revealed that a 1% increase in female chairperson will bring about a 0.008678 increase in financial performance. The probability of female chairperson showed that 0.0062 is lesser than the critical value of significance meaning that female chairperson significantly and positively influences the financial performance of quoted Nigerian Deposit Money Banks.

Also, the size of the coefficient of female non-executive directors revealed that a 1% increase in female non-executive directors will result in a 0.000093 increase in financial performance. The probability of female non-executive director showed that 0.9652 is greater than the critical value of significance meaning that female non-executive director has positive but insignificant influence on the financial outcome of listed Nigerian Deposit Money Banks.

The null hypothesis is therefore rejected and the alternate hypothesis accepted. This revealed that female board participation significantly influences the financial performance of listed Nigerian Deposit Money Banks.

5.0 CONCLUSION AND RECOMMENDATIONS

Based on the findings, the following conclusions were drawn, Females were represented on the boards of listed Nigerian Deposit Money Banks but the percentage is in contrast to the 40% prescribed by the Central Bank of Nigeria, 2014.

Female board participation significantly affects the performance of listed Nigerian Deposit Money Banks. Few or one female on the board tends to negatively affect firm financial performance but when the number increases, the effect becomes positive. The increase in the number of female directors is positively linked with the ROA and ROE of firms. (Torchia *et al.,* 2011). Female non-executive directors and female chairpersons had a positive impact on the financial outcome of listed Nigerian Deposit Money Banks.

The results of this study have consequential inferences for policies and practices in which considerable attention has been paid to the persistent under-representation of females on board. The study, therefore, proposed that listed Nigerian Deposit Money Banks should expand the percentage of female non-executive directors to male non-executive directors on their boards and also more female chairpersons should be appointed to chair the board because females are highly outspoken and likely to query traditional perception and talk about issues or management decisions they consider to be seeking an open forum or more questioning. (Fondas and Sassalos, 2000).

The study further recommends that professional bodies and regulatory agencies should formulate mandatory policies and disclosure requirements for the involvement of females on the company's board and also establish ways of enforcing it.

Contribution to Knowledge

This research contributed to discussing gender parity on boards in the literature and established the female's representation on the boards of Deposit Money Banks listed in Nigeria. This research also creates awareness for the policymakers in Africa, especially in Nigeria, and suggests that they should regulate female's participation on the board like some advanced countries.

Furthermore, this study confirmed females' significant participation in the board and shows how participation affects listed Nigerian Deposit Money Banks' performance. This result gives insight that female chairperson and female non-executive directors can contribute to developing emerging countries' economies like Nigeria because of their high consumer demand and consumer spending and shows that diversity in the boardroom will enhance good decision-making and strengthen its competitive advantage and the female can be part of this progress.

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ASSESSMENT OF THE IMPACT OF PETROLEUM SUBSIDY REMOVAL ON WELFARE IN NIGERIA

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ABSTRACT

The removal of petroleum subsidy at every stage to which it is pronounced by the government has seen mixed reactions by stakeholders and the populace in general, especially as it affects their welfare. This study, therefore, assesses the impact of the removal of petroleum subsidies on welfare in Nigeria between March 2017 and August 2020. The focus of this study is to examine if the impact of the removal of petroleum subsidy on welfare tarries from the short-run to the long-run in Nigeria. To achieve this objective, secondary data was collected from the National Bureau of Statistics (NBS), and the Augmented Dickey-Fuller (ADF) test was used to test for the data stationarity. The study employed both the autoregressive distributed lag (ARDL) and the non-linear autoregressive distributed lag (NARDL) as estimation techniques. From the result, the asymmetric approach through ARDL shows that removal of petroleum subsidy is not significant to cause a change in household welfare. The asymmetric approach however shows that in the short-run, removal of petroleum subsidy will lead to loss of welfare but there would be no significant impact of the removal of petroleum subsidy on welfare in the long run. Therefore, this study concludes that the impact of the removal of petroleum subsidy on welfare in Nigeria is a short-term phenomenon as people get used to the new normal in the long run. It is therefore recommended that government should appropriate the fund earlier slated for petroleum subsidy in Nigeria to other development projects that would cushion the effect of petroleum subsidy removal in the short run. This would quickly transit the effect of petroleum subsidy removal on welfare from the short run to the long run.

Keywords: ARDL, NARDL, Petroleum, Subsidy, Welfare.

JEL Codes: C22, C22, P28, H2, I38

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1.0 INTRODUCTION

In a mixed economy like Nigeria, it is expected that a free market with state's intervention should operate, that is, a capitalist market with strong regulatory oversight and extensive interventions of the government, especially in key sectors of the economy like the energy sector, such that the invisible hands can be left to play in determining the prices of energy products, but with the state's intervention. The essence of the state's intervention is to prevent exploitation by the marketers, prevent waste arising from a reduction in the true market price of energy products that does not reflect the true market cost, prevent the inefficient consumption and production of subsidized goods and give room for efficiency in the usage of energy resources by the citizens. (Saunders & Schneider, 2000).

However, from 1977 up until recently, the invisible hands were kept out of the energy sector of Nigeria; the forces of demand and supply were not allowed to play in determining the price of energy products, as the economy was operating on energy subsidy for a long time. The government of Nigeria embarked on Nigeria's petroleum product subsidy in 1977, as a way to relieve the economy from the impact of the rising international oil price for a short period. It was intended to serve as a temporary fiscal response to the sharp increase in the price of oil, which was brought about by the actions of the Organization of the Petroleum Exporting Counties (OPEC), but fuel subsidy was retained by the succeeding governments as a tool to stabilizing the domestic fuel prices and making provision for a more obvious economic benefit for the people (International Institute for Sustainable Development (IISD), 2016).

Since then, the subject of subsidy and its impact on the economy has been a controversial issue, as there are three standpoints in the literature regarding subsidies. Firstly, studies that considered the effects of subsidies on other magnitudes and indexes in an economy as a reason not to eliminate subsidies. For instance, Parkh, Purohit & Maitra (2007) did a study on the demand projection of petroleum products and natural gas in India and showed that a 10 percent increase in the price of diesel decreases the real income across all income groups by 0.45percent (also see Saunders & Schneider, 2000; Agbaeze & Abner, 2018; Euijune & Yasir, 2019; Gidigbi & Bello, 2020). Secondly, those that argued for the gradual removal of the subsidies due to its effect on macroeconomic indicators (see Okwanya, Moses & Pristine, 2015; Aliyu, 2009; Nwachukwu, Mba, Jiburum, & Okosun, 2013), and finally studies that emphasized the total overhaul of subsidies (see Widodo, Sahadewo, Setiastuti & Chaemyah, 2012, Uzonwanne, Ezenekwe & Iregbenu, 2015, Akinyemi, Alege, Ajayi, Adediran & Urhie, 2017). For some, this was because it strengthens inequality in economies (see Barnes & Floor, 1996; Ogubodede, Ilesanmi, & Olurankinse, 2010; Azel del Granado, Coady and Gillingham, 2012).

This third school of thought noted that fuel subsidy has some negative effect on the allocation made to other sectors of an economy, as it has impeded other ministries in the attempt to give an expansion to their expenditure function (see Paradiptyo & Sahadewo 2012; George, Elegbeleye, Chukwuedozie and Idowu, 2014). In a study by the International Institute of Sustainable Development (2016), it was stated that fuel subsidy removal is important in healing the Nigerian economy and in achieving inclusive and sustainable economic growth and diversification. As it was recorded that over a third of the recurrent budget was taken by fuel subsidy in recent years, of which, all of these 'wasted' resources could have been spent more judiciously on pro-poor interventions in the economy and in other sectors of the economy that will benefit individual welfare.

This has made the issue of petroleum subsidy controversial issues; as different schools have different explanations to give supporting why fuel subsidy should be removed or sustained; there has been no consensus on the effect of subsidy removal on the welfare of individuals. It is on this note that this study seeks to examine the impact of fuel subsidy removal on the welfare of individuals in Nigeria, by assessing the impact of the price of Premium Motor Spirit (PMS) on the Consumer Price Index (CPI). The rationale for using consumer price index as a measure of welfare is premised on the fact that since price index is a measure of the proportionate or percentage changes in a set of prices over time, a consumer price index measures changes in

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the prices of goods and services that households consume. Such changes affect the real purchasing power of consumer's incomes and thus their welfare.

Though studies such as Nwafor, Ogujiuba, & Asogwa, (2006); Akinyemi, Alege, Ajayi, Adediran and Urhie (2017); Agboje, (2018), have been able to simulate the possible impact of fuel subsidy removal on several macroeconomic variables such as inflation rate, exchange rate and so on, without available data on subsidy removal, this constitutes a gap in literature. To fill this gap, the analysis of this study will be done based on already available data on subsidy removal and not based on simulation analysis, this represents the gap that this study intends to fill. When this gap is filled, it will be a good way to resolve the inconclusiveness in the literature of fuel subsidy-welfare relationship in Nigeria. Therefore, this paper seeks to attend to the question of what are the impacts of fuel subsidy removal on the welfare of individuals in Nigeria by using data from March 2017 to August 2020, as we believe this period will help to capture the real impact of subsidy removal. When this is known, it will be a good way to resolve the inconclusiveness in the literature of fuel subsidy-welfare relationship in Nigeria.

Having introduced the paper, the paper proceeds as follows. 2.0 presents an overview of fuel subsidy in Nigeria and a brief review of literature, 3.0 presents and discusses the methodology employed, 4.0 presents the result and discusses the estimated result, while 5.0 concludes and offers some policy recommendations.

2.0 LITERATURE REVIEW

2.1 Petroleum Subsidy in Nigeria

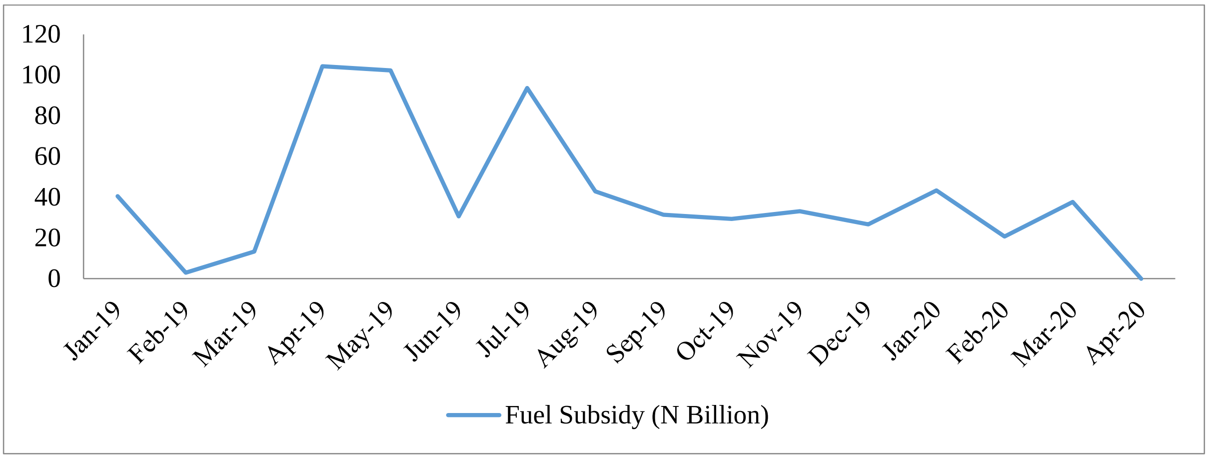
Nigeria is Africa's largest oil-producing country, yet, 70% of her refined oil is imported into the country with the excuse that the four refineries in Nigeria are unable to meet local demand. The excess demand coupled with the increase in the exchange rate makes refined oil dearer for the common man. Hence, the government of Nigeria intervened by subsidizing the price of fuel in 1977. The fuel subsidy was to serve as a temporary fiscal salvage response to a boom in the price of oil (IISD, 2016).

Petroleum subsidy is the difference between the landing cost of premium motor spirit (PMS) and the pump price which is borne by the government. Igbokwe, Ewuim & Agbodike (2015) defined fuel subsidy as the cost absorbed by the government which result from the difference between the international price of petroleum products and the local price. In 2018, the landing cost of PMS was N171, which was N26 above the official pump price of N145, while that of 2019 was N207.98 with N62.98 being paid by the government as subsidy per litre of petrol. In March 2020, the landing cost of PMS fell from N141.07 in January to N92.89 due to the persistent decline of oil prices in the international market (Vanguard Newspaper). The Nigeria National Petroleum Corporation (NNPC), which has since deployed subsidy as part of its operational costs, as the last resort of supply line as enshrined in NNPC Act 1977, defrays an estimated N3.149b per day in 2019 under what is tagged "under-recovery" which is a loss on the importation of the PMS.

According to NNPC monthly report, the total payment for PMS in 2019 was N2,175.20 billion. While domestic payment by immediate users was N1,469.98 billion, fuel subsidy expenditure was N594.09 billion representing 27% of the total payment for PMS.

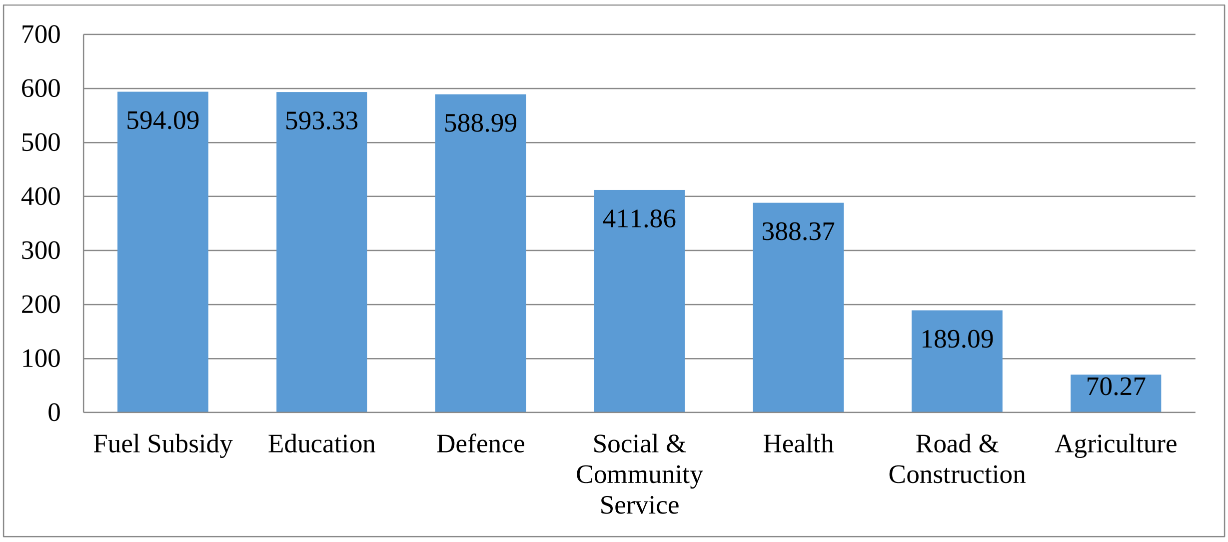
Also, the Petroleum Product Pricing Regulatory Agency (PPPRA) and NNPC reported that Nigeria spent at least N10 trillion on fuel subsidies from 2006 to 2018 (Budget, 2019). With Nigeria total expenditure of N7,813.74 billion in 2018 and N9,714.84 billion in 2019, fuel subsidy expenditure for the past 13 years (2006-2018) was 22% higher than the 2018 budget and 3% higher than the 2019 budget (see CBN Statistical bulletin, 2020). In addition, the recurrent amount spent on fuel subsidy in 2019 is higher than what was spent on health, education, defence, agriculture, road & construction, and other social & community service.

Figure I: Total Monthly Payment for PMS



Source: Authors' computation using NNPC Monthly Report

Figure II: Nigeria Major Recurrent Expenditure in 2019 (N Billion)



Source: Authors' computation using NNPC Monthly Report and CBN Statistical Report

Petroleum subsidy Removal and Economic Welfare

Nigeria since 2012 embarked on major gradual removal of petroleum subsidy and the effect had been a mixed reaction on economic welfare. While some argued that the removal of petroleum subsidy had increased the prices of goods and services in Nigeria (see Azel del Granado *et al.*, 2012), some argued that it has increased socioeconomic welfare since the removal started (see Khalid et al, 2014; Burniaux & Chateau, 2011; Akinyemi 2017). In 2012, the price of PMS was increased to N143 and later reduced to N97 (Igbokwe, Ewuim & Agbodike, 2015). It was subsequently increased until 2020 when there was an increase and decrease in the price of PMS due to oil price fluctuation in the international market. The pump price was fixed as recommended by PPPRA at N125 per litre in March 2020 and was reviewed downward in April to N123.50. By June 2020, the PMS pump price fell to N121.50 but was reviewed upward to N143.80 per litre in July 2020 (Guardian Newspaper). However, from 2017 to 2019, the price of PMS had been stable and prices of basic needs like food and health had been increasing, although, health prices were increasing at a decreasing rate.

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2.2 Theoretical Review

Studies in the past have adopted different theories to underpin their analysis of the impact of petroleum subsidy on welfare. For instance, Okwanya et al (2015) adopted the poverty gap theory to analyze the impact of petroleum subsidy and consumer price index for Nigeria. In this study, the neoclassical theory serves as the framework. One major feature of neoclassical ideology is the combination of Keynesian macroeconomic theories and Classical microeconomic theories. The synthesis between both schools led to the neoclassical, which has dominated economic reasoning since then. Neoclassical economics primarily concerns the efficient allocation of limited productive resources. It also considers the growth of the resources in the long term. It emphasizes that market equilibrium is the key to an efficient allocation of resources. Thus, market equilibrium should be one of the primary economic priorities of a government (Weintraub, 2007), likewise, state intervention is only considered to be economically reasonable in case of a market failure. Summarily, neoclassical economics is founded on the assumption that there are both short-run and long-run implications of any policy. They argued that "an increase in the aggregate demand leads to an increase in the national income in the first range, a simultaneous increase in the national income and the price level in the second range, and an increase in the price level in the last range." While government intervention in the market leads to a quick remedy to economic issues as argued by the Keynesian school, the market through the invisible hand brings the market into equilibrium in the long run. Hence, the welfare of agents in the economy are affected in two ways; first is how agents respond to government policy within a specific period and the second is how they adjust to the new normal as time goes on.

2.3 Empirical Literature

Barnes and Floor (1996) in their study on rural energy in developing countries found out that competition is not encouraged through subsidy, because the efficient working of the market is tampered with through subsidy, for the market to operate efficiently, energy prices must reflect their full cost. Stating that policies that give room for an efficient market in the energy sector should be supported, thereby making energy attractive to investors as well as accessible to consumers, and also ensure the efficient usage of energy.

Bacon & Kojima (2006) in their study on coping with higher oil prices stated that, though fuel price subsidy helps the poor, its cost to society and government is high, thereby recommending that government must explore policies that will enable the shift from fuel price subsidy to pro-poor policies.

In a study done by Aliyu (2009), on the impact of an oil price shock and real exchange rate volatility on the gross domestic product (GDP) in Nigeria, the Cointegration technique was employed to determine how volatile GDP is to oil prices changes as well as exchange rate changes. The study showed that a 10 percent increase in oil price increases GDP by 7.7 percent and that GDP increases by 0.35 percent if there is a 10 percent increase in exchange rate.

Burniaux & Chateau (2011) in their study stated that the removal of fuel price subsidy by non-OECD countries revealed welfare gain ranging from 0.3% in nearly all the countries or regions, while there is more than 4% gain in welfare for the oil-exporting countries by 2050. Stating that aside from the welfare gain which subsidy removal brings, oftentimes, it also comes along with a more efficient allocation of resources across sectors.

Azel del Granado *et al.* (2012) carried out a study on the unequal benefits of fuel subsidy in developing countries and discovered that cost of living of all income groups in developing countries increases by 6 percent if there is a $0.25 increase in the price of fuel per litre, stating that the increase in the price of diesel brought about at least half of the increase in the cost of living, this was because of the indirect effect of an increase in the price of fuel on the prices of other goods, most especially in countries where their production uses energy gotten from diesel as their major source of energy.

In the attempt to study the impact that oil price shock has on aggregate economic activity in Nigeria, Olomola (2006), examined how oil price changes can affect the volatility of money supply, GDP, exchange rate, and CPI, by making use of the Vector Autoregressive (VAR) model. It was discovered that oil price changes have no significant impact on money supply, GDP and CPI, but has a significant impact on exchange rate.

In a study carried out by Pradiptyo and Sahadewo (2012) on the most acceptable scheme for lifting fuel subsidy in Indonesia, it was discovered that the subsidy scheme has been a poor policy for assisting poor households or improving household welfare. Every household group especially the high-income ones have the same access to subsidized fuels. More subsidy is given to the car owners when compared to the owners of motorcycles or those without a motor vehicle. As a result of this, distortion inefficient distribution has been created by fuel subsidy, since the benefit of fuel subsidy accrues more to wealthy consumers. Those who own a car receive more subsidies compare to those who own motorcycles or those who do not possess any motor vehicle. As a consequence, the subsidy on fuel has been distorting efficient allocation in Indonesia since wealthy consumers benefit from fuel subsidies the most.

According to Widodo, Sahadewo, Setiastuti and Chaemyah (2012) in their study on the impact of fuel subsidy removal on government spending, it was stated that the removal of fuel price subsidy has environmental benefits, as the abolition of fossil fuel subsidies, would reduce emission, which would be of benefit to air quality and consequently human health. They also stated that the phasing out of fossil-fuel subsidies in some non-OECD countries would reduce world Greenhouse Gas (GHG) emissions by 10 percent in 2050.

George, Elegbeleye, Chukwuedozie and Idowu (2014) examined the social and psychological effects of fuel subsidy removal on the Nigerian family, the study revealed that random and aimless fuel consumption will be reduced if fuel subsidy is discontinued, carbon emission will reduce, and this will also give room for channelling the money that could have been used on fuel price subsidy, towards infrastructural development, as well as the reinstatement of the refinery, among other things that will transform the Nigerian economy.

A study by Uzonwanne, Ezenekwe and Iregbenu (2015) in the quest to know the contributions of fuel subsidy in the Nigerian economy showed that “fuel subsidy has not resulted in a significant improvement in the quality of life of a majority of Nigerians”.

Dennis (2016) examined the implications of fossil fuel subsidy reforms on household welfare in developing countries, from the analysis, it could be seen that the removal of petroleum subsidies has mixed results on households’ welfare, stating that while the government have positive implication, the implications are mixed for private households.

Akinyemi, Alege, Ajayi, Adediran and Urhie (2017) discovered that the agricultural sector of the economy performs better in a situation where there is a one-shot or complete removal of fuel subsidy, as there was an increase or improvement in the major macroeconomic variables under the complete removal simulation scenario.

Ali, Abdullah, Noor, Viswanathan, and Islam, (2017) found out that subsidy is less effective for the livelihoods or welfare of fishers because it makes fisherman more dependent, and its termination has no effect on the livelihoods of fishermen, but found subsidy very useful during the crisis time. The results demonstrated that during crises, fuel subsidy was the most important item for the fisher as it reduced fishing operation costs and has important implications for fisheries resource sustainability.

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Agbaeze and Abner (2018) looked at oil subsidy management and performance of the Nigerian economy using an ex-post facto research design, the result showed that subsidy payment had a positive and significant impact on the gross domestic product of Nigeria for the period of 2006 to 2015.

Euijune and Yasir (2019) in the quest to find out the effect of a shift in government policy from fuel subsidy to infrastructure investment on the Indonesian economy as it relates to their GDP and income distribution, it was discovered that fuel subsidy cut impacts the economic growth and income distribution negatively, but the reallocation of this fuel subsidy to infrastructure investment has a positive effect on economic growth but a negative effect on inequality.

Gidigbi and Bello (2020) in their study on petroleum subsidy reduction and poverty reduction in Nigeria, comparison between the PMS subsidy and deadweight loss was made, it was discovered that there is almost no difference between the contribution of PMS subsidy and a deadweight loss on PMS subsidy to poverty reduction. The PMS subsidy impact is slow and very low, and the efficiency loss due to the subsidy is also slow and low, though lower than the effect of the PMS subsidy. Therefore, PMS subsidy was seen as a better choice in the reduction of poverty, as the removal and replacement of PMS subsidy with other interventions that improve the welfare of households may not contribute more to poverty incidence reduction in the country.

Omotosho (2020) did a study on the macroeconomic implications of oil price shocks and fuel subsidy regime for Nigeria. It was seen that there exists persistent and significant impact of oil price shock on output. In the model with fuel subsidy, the aggregate GDP contracts when there is a negative oil price shock while the non-oil GDP is boosted, headline inflation increases, and the exchange rate depreciate. However, results generated under the model without fuel subsidies indicate that the contractionary effect of a negative oil price shock on aggregate GDP is moderated, headline inflation decreases, while the exchange rate depreciates more in the short run.

A study by Adekunle and Oseni (2021) on Fuel subsidies and carbon emission using the non-linear autoregressive distributed lag (NARDL) estimation technique to check for the impact of fuel subsidy on carbon intensity (which could account for environmental welfare level) in Nigeria, showed that in the long run and short run, there exists an inverse relationship between fuel subsidy removal and Nigeria's carbon emission.

3.0 METHODOLOGY

Although the Keynesians believe in short term remedies through the use of fiscal policy to influence socioeconomic welfare, the classicists opined that the effect of fiscal policy on socioeconomic welfare is rarely instantaneous. In this study, we synthesize both the Keynesian and Classical propositions. Hence, we specify the study model as follow;

$$Y_t = \alpha + \beta X_t + \mu_t \qquad (1)$$

Where Y is consumer price index used to capture household welfare (The rationale for using consumer price index as a measure of welfare is premised on the fact that since price index is a measure of the proportionate or percentage changes in a set of prices over time, a consumer price index measures changes in the prices of goods and services that households consume. Such changes affect the real purchasing power of consumer's incomes and thus their welfare).

X is the average pump price of petrol in the country. As previously noted, the removal of subsidies on petroleum implies that the pump price of petrol is determined by the market price. Hence, there are tendencies that the price of petrol will fluctuate. Equation (1) is re-specified therefore, to account for the non-linearity or the asymmetry in the pump price of petrol as follow:

$$Y_t = \alpha + \beta_1 X_t^+ + \beta_2 X_t^- + \mu_t \qquad (2)$$

Where X^+ and X^- are positive and negative movement in the pump price of petrol.

Although the study's preferred estimation technique is the non-linear version of ARDL proposed by Shin, Yu, and Greenwood (2014), this study, however, starts estimation by considering the traditional ARDL Bound test to test if there is a long-run relationship between the variables, and it is specified as:

$$Y_t = \alpha_0 + \sum_{i=1}^{p} \beta_1 \Delta Y_{t-k} + \sum_{j=0}^{q} \beta_2 \Delta X_{t-k} + \alpha_1 Y_{t-1} + \alpha_2 X_{t-1} + \mu_t \qquad (3)$$

Equation 3 comprises the information for the short-term and the long-term with p and q representing the optimal lag. β_1 and β_2 are short-run coefficient, whileα_0 and $\alpha_2$are normalized on α_1 and it is computed as $\frac{-\alpha_0}{\alpha_1}$ and $\frac{-\alpha_2}{\alpha_1}$ to give the long-run intercept and long-run slope respectively.

To capture the effect of asymmetries in the model, the non-linear ARDL (NARDL) as proposed by Shin, Yu, and Greenwood (2014) is employed to decompose the positive movement of the pump price of petrol and the negative movement of the pump price of petrol. As such, equation (3) is further re-specified as;

$$Y_t = \alpha_0 + \sum_{i=1}^{p} \beta_1 \Delta Y_{t-k} + \sum_{j=0}^{q} (\beta_2^+ \Delta X_{t-k}^+ + \beta_2^- \Delta X_{t-k}^-) + \alpha_1 Y_{t-1} + \alpha_2^+ X_{t-1}^+ + \alpha_2^- X_{t-1}^- + \mu_t \qquad (4)$$

The impact of the positive movement and negative movement of the pump price of petrol in the short-run is accounted by β_2^+ and β_2^- respectively, while their long-run parameters are defined as $\frac{-\alpha_2^+}{\alpha_1}$and $\frac{-\alpha_2^-}{\alpha_1}$ respectively.

3.1 Estimation Technique

Firstly, all data series (see appendix 1) are monthly data from March 2017 to August 2020 and are sourced from the National Bureau of Statistics (NBS). For the pretesting, the Augmented Dickey-Fuller (ADF) test was used to examine the stationarity of the data. The estimation however starts from the symmetric ARDL approach. This was considered to check how robust our result is. Finally, Non-linear Autoregressive Distributed-lag (NARDL) bound test was used to test for linear combination. We used a parsimonious approach through stepwise regression to estimate our NARDL result. Likewise, the interaction of petroleum subsidy removal on household welfare in Nigeria was estimated through the dynamic multiplier graph while we used VAR lag-length criteria to determine the optimal lag level of the series.

4.0 RESULT AND DISCUSSION OF FINDINGS

4.1 Pre-estimation Results

The commencement of this study result starts with the descriptive statistics of the series. This is convenient as it gives first-hand information about the properties of the series.

Table I reveals that on average between March 2017 and August 2020, the consumer price index (CPI) in Nigeria was 275 while the pump price of petrol (PMS) was 148. The difference between the maximum values of the two variables and their minimum values suggest that PMS is more volatile with a standard deviation of 1.98 than CPI. This validates the position of this study that the pump price of petrol in Nigeria over the time frame considered had witness deliberate removal of subsidy by the government which by extension created some cyclicality in the price of petrol in Nigeria

Table I: Descriptive Statistics of Series

Variables	Mean	Max	Min	Std Dev.	Skewness	Kurtosis	Obs.
CPI	275.48	334.57	222.71	31.39	0.17	1.92	42
PMS	148.15	190.87	128.88	10.40	1.98	9.40	42

Source: Author's Computation (2021)

Table II shows that CPI is not stationary at levels. Therefore, we accept the null hypothesis of unit root at levels, that is, at level; CPI will produce a spurious result. However, after first differencing, the CPI series was stable even at 1%. Hence, we accept the alternative hypothesis of no unit root at first difference.

Table II: ADF Unit Root Tests Results

Variables	At Level	First Difference	Order of Integration
CPI	2.2152	-4.6912***	I(1)
PMS	-3.2371**	---------------	I(0)

** and *** indicate the level of significance at 5% and 1% respectively

On the other hand, at a 5% significance level, PMS is stationary at levels, thus the study rejected the null hypothesis of a unit root. The heterogeneous result of the stationary test authenticates the choice of the Autoregressive Distributed Lag (ARDL) model of this study, which is in line with Pesaran et al. (2001) position on necessary conditions for the ARDL model.

Table III: Optimal Lag Length Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	90.55399	NA	4.09e-05	-4.427699	-4.343255	-4.397167
1	255.5043	305.1580	1.31e-08	-12.47521	-12.22188	-12.38362
2	286.0659	53.48280*	3.48e-09*	-13.80329*	-13.38107*	-13.65063*
* indicates lag order selected by the criterion						

Source: Author's Computation (2021)

In order not to lose the degree of freedom of our estimation, we tested for the optimal lag length of our model. For this study, we use the Akaike Information Criterion (AIC) as the result in Table II shows that CPI and PMS lag is optimal at 2.

4.2 Estimation Results

In order not to derail from the study objectives, it is expedient to quickly summarize the concept of this study. When petroleum subsidy is removed, the resultant effect is an increase in the pump price of petrol, which in turn reduces the purchasing power of household income. As such, it is expected that an increase in the pump price of petrol will reduce the household welfare of the people (ceteris paribus). Therefore, a premium is placed on an increase in the pump price of petrol in this study than the decrease; also, CPI used as a proxy to welfare is interpreted inversely to welfare, that is, the higher the CPI, the lower the welfare. However, the discussion of the results is commenced with the symmetric ARDL.

From Table IV, the ARDL result shows that there is no long-run relationship between PMS and CPI as the F-statistics of the Bound Test is not significant at any level. This is further validated by the error correction term (ECT) which measures the speed of adjustment of the model as it is wrongly signed and also not significant. By extension, both in the short-run and long-run, there is no significant impact of PMS on CPI. This implies that both in the long-run and the short-run, removal of petroleum subsidy does not significantly affect household welfare in Nigeria.

Table IV: Regression Result

Variables	ARDL	NARDL
C	-0.0226 (0.0305)	5.8345***(0.6797)
ΔX	0.0010 (0.0040)	---------------
Y(-1)	0.8381 (0.0903)	0.7324***(0.0717)
X	---------------	---------------
ΔX^+	---------------	0.0195*** (0.0070)
ΔX^-	---------------	-0.0151** (0.0065)
X^+	---------------	-2.3481 (3.3138)
X^-	---------------	-4.404526 (5.2894)
F-stat Bounds	1.2732	5.9023***
ECT	0.0034 (0.0025)	-0.0026(0.0040)
Adjusted R^2	0.7271	0.7871
LM Test	[0.4611]	[0.6164]
σ^2	[0.0207]	[0.4669]
*Notes: *** indicate the level of significance 1 per cent, ( ) indicates the standard error, and [ ] indicates probability values. LM Test represents serial correlation while σ^2 represent heteroscedasticity*		

Source: Author's Computation (2021)

Nevertheless, studies like Akinyemi *et al.* (2013); George, Elegbeleye, Chukwuedozie and Idowu (2014); and Agbaeze and Abner (2018) assess the impact of the removal of petroleum subsidy in Nigeria, and they all find it significant in influencing various economic indexes. This suggests that there is an asymmetric effect of PMS on CPI. However, to statistically show that there is a presence of asymmetry, the Wald Test of NARDL is employed.

Table V: Wald Test Result

Wald Statistics		Evidence of Asymmetric	
Short-run	Long-run	Short-run	Short-run
6.0870*** [0.0058]	2.1326 [0.1351]	Yes	No
*** indicates 5% level of significance Values in square brackets are probabilities.*			

Source: Author's Computation (2021)

Having found out that PMS does not significantly affect CPI in the symmetric approach to ARDL; the Wald Test in Table V justifies such result. The Wald test shows that there is a presence of asymmetry in the short run and that a non-linear approach to ARDL (NARDL) is suitable to access the impact.

Returning to Table IV, firstly, the F-statistics shows that there is a long-run relationship between PMS and CPI in Nigeria. Howbeit, the long-run coefficients of PMS are not significant to cause an impact on CPI. This implies that although there is a long-run relationship between welfare and removal of petroleum subsidy, and as argued by Widodo et al. (2012), however, in the long run, removal of petroleum subsidy will not affect household welfare in Nigeria, as people will get used to the new normal. This is in support of studies like Olomola (2012), and Akinyemi et al. (2013). Although the result in the long run by IEA (1999) posits that removal of subsidy will increase social welfare, the result is not significant for Nigeria.

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In the short run, the impact of PMS is highly pronounced on CPI. This means that the impact of the removal of petroleum subsidy in Nigeria on household welfare is felt within the immediate pronunciation of such policy. Specifically, when the government removes a percent of petroleum subsidy, household welfare in Nigeria falls by 0.015%. This is so because petroleum subsidy implies that part of the cost of petrol is borne by the government and removal of petroleum subsidy means the pump price of fuel increases. On the other hand, the welfare of the household is the economic wellbeing expressed in terms of consumer surplus; that is, when the price of goods and services is rising, holding other things constant, the welfare of the household decreases and vice versa. In essence, this study found that the removal of petroleum subsidy increases the basket price of goods in the economy which further leads to a loss in household welfare in the short run. This validation corroborated with studies like Okwanya et al. (2015), Azel del Granado et al. (2012), Khalid et al. (2014), among others.

Critically, the study result is expected. Nigeria's refined oil is mostly imported into the country. This refined oil comes at a high price which is compounded by the watery exchange rate of the naira. Hence, this high price decreases purchasing power. This is why the government uses a managed price control to determine the price of petrol in Nigeria rather than the price mechanism. They do this by providing subsidies to cushion the effect of a hike in the price of petrol on household welfare. Therefore, it is expected that when the government removes petroleum subsidy, the pump price increases, and with oil being an essential commodity in Nigeria which makes its demand to be inelastic, purchasing power fall and further leads to household loss.

For robustness of this study result, the post-estimation of this result is reported. The Jarque-Bera test for normality shows that the model was normal at a 5% level of significance. We, therefore, reject the null hypothesis of non-normality. The Ramsey Reset test shows that the series in this model were linearly specified at a 5% level of significance. As such, the null hypothesis of nonlinearity is rejected. For serial correlation, the LM test shows that the independent variables are not correlated with the error term at a 5% level of significance. Therefore, we reject the null hypothesis of serial correlation in the model. The Breusch-Pagan-Godfrey test for heteroskedasticity shows that, at a 5% level of significance, the model is free from unequal variance in the error term. This implies that we reject the null hypothesis of heteroskedasticity in the model. The Cusum and Cusum Square shows that the model is stable, that is, it is free from structural breaks.

Lastly, the dynamic multiplier graph shows that the asymmetric plot lies between the 5% horizons, which further substantiate the presence of asymmetric in the model. Also, it shows that in the short-run, the removal of petroleum subsidy is significant in explaining changes in household welfare as the non-dashed black line is closely knitted with the asymmetric plot. While a divergence as the line progress shows that in the long run, asymmetric petroleum subsidy removal is insignificant. This, therefore, correlates with the result of the NARDL. Conclusively, our findings are valid and its policy implication should be taken seriously.

5.0 CONCLUSION AND POLICY RECOMMENDATION

The study empirically investigates the impacts of petroleum subsidy removal on welfare in Nigeria from March 2017 to August 2020. The Keynesian and Classical propositions on the role of fiscal policy in influencing socioeconomic welfare were both synthesized by testing for the short-run and long-run welfare implications of petroleum subsidy removal. In evaluating its objective, the paper adopts the Autoregressive Distributed-lag (ARDL) approach to account for the symmetric relationship between the variables, as well as the Non-linear Autoregressive Distributed-lag (NARDL) approach to account for the non-linearity or the asymmetric relationship in the model to decompose the positive movement of the pump price of petrol and the negative movement of the pump price of petrol.

The empirical result of the ARDL model indicates that there is no long-run relationship between PMS and CPI and that in both the short-run and long-run, there is no significant impact of PMS on CPI. This implies that in the long-run and the short-run, the removal of petroleum subsidy does not explain household welfare in Nigeria. However, the empirical result of the Non-linear Autoregressive Distributed-lag (NARDL) model shows that there is a long-run relationship between the price of PMS and CPI in Nigeria, but that the long-run coefficients of PMS are not significant to cause an impact on CPI, this result is consistent with that of Olomola (2012), and Akinyemi et al. (2013). This implies that after the removal of fuel subsidy, which could result in a decrease or increase in the price of fuel, depending on the interplay of the market forces, the changes in the price of PMS does not have a significant impact on the welfare of the people in the long run.

The study, therefore, recommends that the government should redeploy the fund earlier used to subsidized petroleum prices to other relevant development projects that would cushion the effect of the removal of petroleum subsidy in the long run. For instance, the government should use the fund earlier stated for petroleum subsidy to provide basic infrastructure like good roads; this would aid the economic activities of the people and improve their income level, such that the purchasing power of the people's income that was earlier reduced due to removal of petroleum subsidy is again restored through the increase in income, thereby leaving the welfare unaffected. The provision of good roads will also reduce the transportation cost of goods and services, thereby reducing the price of goods and services; this will therefore increase the purchasing power of people, thereby making the impact of fuel subsidy removal on welfare insignificant in the long run. In the area of healthcare provision, such funds will help to reduce the fraction of the people's income that is spent on healthcare, such that the purchasing power of people's income that was earlier reduced due to removal of fuel subsidy is again restored through the income effect of the removal of expenses incurred on health care services. The educational sector should not be left out to benefit from the fund earlier used for petroleum subsidy. Proper funding of public schools will improve the educational status of the people, thereby increasing their chances of getting better-paying jobs, which will increase their income level, such that the purchasing power of the people's income that was earlier reduced due to the removal of fuel subsidy is again restored through the increase in income, thereby confirming the result that the long-run impact of the removal of petroleum subsidy is not significant to cause any change on welfare.

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Appendix 1

Year	PMS	CPI	PMS (Log)	CPI(Log)
Mar-17	149.39479	222.7	2.174335	2.34772
Apr-17	149.86681	226.3	2.175705	2.354685
May-17	150.69085	230.5	2.178087	2.362671
Jun-17	150.28468	234.2	2.176915	2.369587
Jul-17	148.20723	237	2.170869	2.374748
Aug-17	144.43433	239.3	2.15967	2.378943
Sep-17	144.5174	241.2	2.15992	2.382377
Oct-17	145.99139	243	2.164327	2.385606
Nov-17	145.60432	244.9	2.163174	2.388989
Dec-17	171.78608	246.4	2.234988	2.391641
Jan-18	190.87489	248.4	2.280749	2.395152
Feb-18	172.46055	250.3	2.23669	2.398461
Mar-18	163.39486	252.4	2.213238	2.402089
Apr-18	151.39595	254.5	2.180114	2.405688
May-18	150.16541	257.3	2.17657	2.41044
Jun-18	148.08691	260.5	2.170517	2.415808
Jul-18	146.81857	263.4	2.166781	2.420616
Aug-18	146.89989	266.2	2.167021	2.425208
Sep-18	147.33011	268.4	2.168292	2.428783
Oct-18	147.22502	270.4	2.167982	2.432007
Nov-18	147.45857	272.6	2.16867	2.435526
Dec-18	145.77675	274.6	2.163688	2.438701
Jan-19	145.70053	276.6	2.163461	2.441852
Feb-19	145.29176	278.6	2.162241	2.444981
Mar-19	145.32202	280.8	2.162331	2.448397
Apr-19	145.92318	283.5	2.164124	2.452553
May-19	145.03319	286.6	2.161467	2.457276
Jun-19	145.35921	289.7	2.162443	2.461948
Jul-19	145.02658	292.6	2.161448	2.466274
Aug-19	145.4827	295.5	2.162811	2.470557
Sep-19	145.53085	298.6	2.162955	2.47509
Oct-19	145.47545	301.8	2.16279	2.479719
Nov-19	145.94422	304.9	2.164187	2.484157
Dec-19	145.3486	307.5	2.162411	2.487845
Jan-20	145.36892	310.2	2.162472	2.491642
Feb-20	145.41386	312.6	2.162606	2.494989
Mar-20	145.39993	315.2	2.162564	2.498586
Apr-20	130.8404	318.4	2.116742	2.502973
May-20	129.67337	322.2	2.112851	2.508126
Jun-20	128.8835	326.1	2.110197	2.513351
Jul-20	143.62609	330.1	2.157233	2.518646
Aug-20	148.77522	334.6	2.172531	2.524526

Source: National Bureau of Statistics (NBS)

Appendix 2

ARDL Cointegrating And Long Run Form
Dependent Variable: CPI
Selected Model: ARDL(2, 2, 2)
Date: 05/23/21 Time: 11:38
Sample: 2017M03 2020M08
Included observations: 39

Cointegrating Form

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(CPI(-1))	0.732427	0.071691	10.216504	0.0000
D(PMS_POS)	-0.003161	0.005447	-0.580282	0.5661
D(PMS_POS(-1))	0.019542	0.006958	2.808353	0.0087
D(PMS_NEG)	-0.007461	0.008409	-0.887228	0.3820
D(PMS_NEG(-1))	-0.015120	0.006526	-2.316683	0.0275
CointEq(-1)	-0.002614	0.004045	-0.646206	0.5231

Cointeq = CPI - (-2.3481*PMS_POS -4.4045*PMS_NEG + 5.8345)

Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PMS_POS	-2.348095	3.313769	-0.708587	0.4841
PMS_NEG	-4.404526	5.289375	-0.832712	0.4116
C	5.834454	0.679743	8.583324	0.0000

Post Estimation Test	**F-statistic**	**P.Value**	**Decision**
Normality	1.0985	0.5774	Accept
Linearity	0.461719	0.5019	Accept

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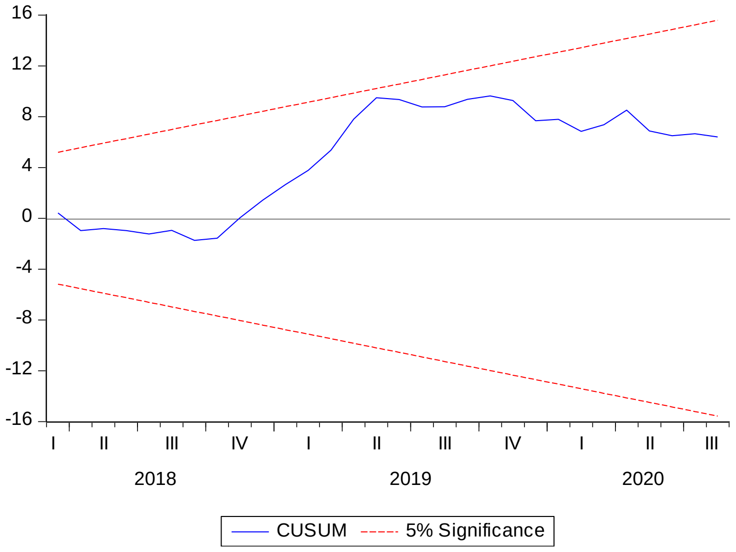
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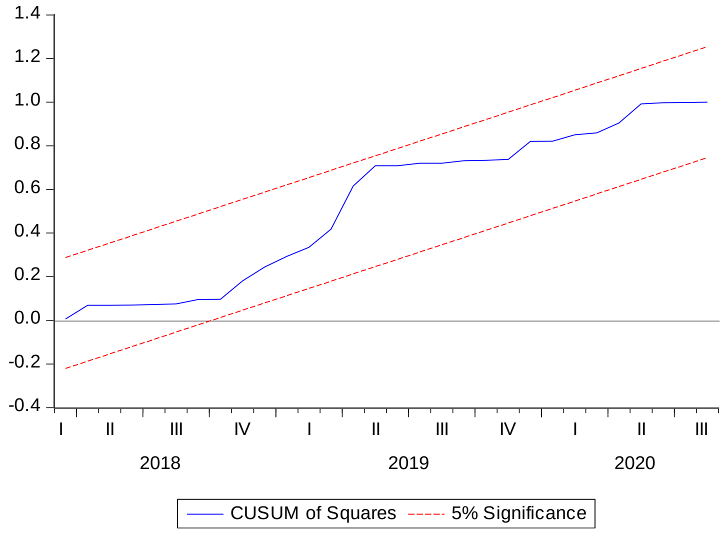
5% Significance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2019
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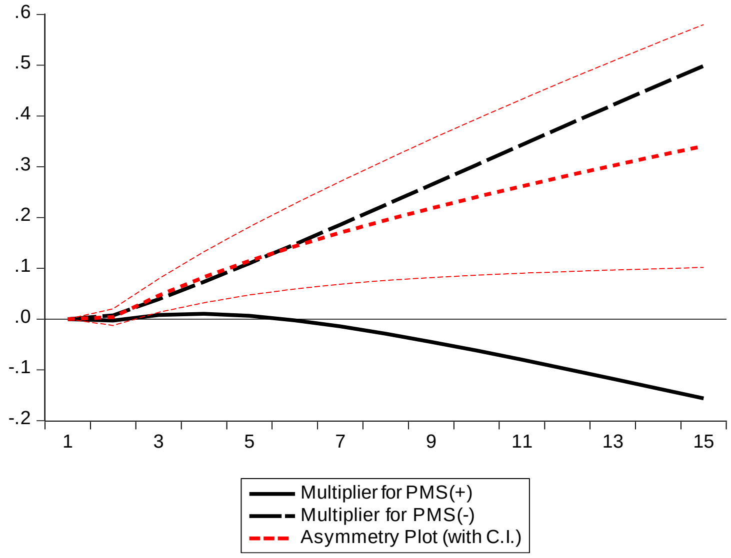
CUSUM of Squares
5% Significance


.6
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.4
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.1
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1 3 5 7 9 11 13 15
Multiplier for PMS(+)
Multiplier for PMS(-)
Asymmetry Plot (with C.I.)

MODERATING EFFECT OF EMOTIONAL INTELLIGENCE ON TRAINING STRATEGIES IN FOSTERING BUSINESS CREATIVITY COMPETENCE OF MANAGERS IN SELECTED IT COMPANIES IN LAGOS STATE

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ABSTRACT

This study examined the moderating effect of emotional intelligence on creativity training strategies and the creative competence of managers in the Information and Technology industry (IT) in Lagos. The study adopted the pre-test, post-test, control group, experimental design, using a 3x3x2 factorial design. A sample of 126 managers drawn from three (IT) companies was used for the study. Schutte et- al (1998) Emotional Intelligence Assessment Scale was used to select and categorise subjects into three levels of emotional intelligence based on their scores on the scale. Each group consisted of 42 subjects (21 male and 21 female managers). The experimental groups were exposed to six weeks of Simplex and APCAW training while the control group was given placebo training. One hypothesis was tested and data obtained were analysed using Analysis of Co-variance (ANCOVA), tested at 0.05 level of significance. Findings from the study revealed that there was a significant difference in business creativity competence among participants with different levels of emotional intelligence (EI) - high, medium and low (F (2.107) = 4.220 p< 0.05. Based on the result of the study, it was recommended that teaching and learning of emotional intelligence should be incorporated into creativity training programmes of employees in both public and private organisations.

Keywords: SIMPLEX, APCAW, Emotional Intelligence (EI), Business Creativity

INTRODUCTION

Enhancing the creative competence of managers in the information and technology industry, characterised by rapid technological advances, is one of the major gripes of human resources management in the 21st century. For business enterprises to survive in the highly competitive market space of the 21st century, the decision to invest in the full effectiveness of the development of the emotional and creative potentials of an organisation most important resource, its people, must be a strategic business decision. In the new economy of the 21st century, organised around teams, the need to develop the emotional intelligence of managers cannot be overemphasised. A large body of knowledge in recent times points out that people's intelligence in solving academic problems says very little about their ability to succeed in solving practical problems in the real world (Goleman, 1998). Evidence abound in literature, where people with high EI and average IQ have fared better in workplaces and life than their counterparts with high IQ only.

Akinboye (2006, cited in Adekunle, 2012) describes emotional intelligence (EI) from the creativity paradigm perspective, EI as the ability to monitor one's own and other's emotions, discriminate among them, and use the information gathered to guide one's thinking and actions in the context of powerful people skills to create new designs, new products, new values, new services, new processes, new perceptions and wealth for marketing**.** Bracket, Rivers& Salovey (2011) submitted that emotionally astute individuals show greater social functioning, are less engaged in conflictual behaviour, are more capable of managing stress, and achieve higher job performance.

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Business creativity is the ability to generate novel useful ideas and solutions to everyday problems and challenges. It involves turning new and imaginative ideas into reality. It encompasses the ability to perceive and see things in new ways, to find hidden patterns, to make connections between seemingly unrelated phenomena, and to generate practical solutions to problems.

Many creativity tools have been developed over time. This study employed the use of Simplex (foreign) and Akinboye Practical Creativity at Work (indigenous) techniques. The Simplex system for creative and innovative thinking is a novel creative problem-solving technique that places a premium on – first, finding and defining problems; second, developing and harvesting of ideas and third, implementation of feasible solutions by collaborating with and respect for different shades of the opinion of others. APCAW developed by Akinboye (1999) also follow a similar procedure - identifying and selecting a domain of problems, generation and evaluation of actionable ideas and lastly commercialisation of new ideas.

Statement of the Research Problem

The more progress the world makes technologically, the more complex the world becomes- cognitively, socially, culturally and financially. In the fast-changing, complex and digitally driven world of the 21st century, the need to understand the relationship between emotional intelligence - the ability to cope with environmental demands and pressure- and creative performance are of utmost importance. The rationale for this is to establish the moderating effects of EI levels on the creative competence of IT managers in Nigeria.

Objective of the Study

The purpose of this paper is to Investigate whether Emotional Intelligence (EI) levels mediate training intervention to foster business creativity competence among subjects of study.

THEORETICAL FRAMEWORK ON EMOTIONAL INTELLIGENCE

Mayer and Salovey (1999)

Mayer and Salovey (1999) motivation to develop the theory of emotional intelligence and instruments to measure it, came from the realisation that traditional measures of intelligence failed to measure individual differences in the ability to perceive, process, and effectively manage emotions and emotional information. The use of this frame is significant as it defines emotional intelligence more specifically as the ability to perceive emotions, to access and generate emotions to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions to promote emotional and intellectual growth. Like other intelligence, Mayer & Salovey define emotional intelligence as a group of mental abilities and are best measured using a testing situation that is performance or ability based. This focus on objective, performance-based assessment is similar in spirit to the methods used to measure traditional intelligence (IQ).

Goleman's Emotional Intelligence Model:

Goleman (1998) presented a broad model and measure of EI that combines self-report and others' reports. He argues that people's intelligence in solving academic problems says very little about their ability to succeed in solving practical problems in the real world. Goleman's model of EI encompasses the ability to monitor oneself and persist in the face of frustrations, to be able to control impulses and delay gratifications, and to be able to regulate one's moods and keep distressed from swamping the ability to think. He points out that EI also involves the capacity for recognising our feelings and those of others, for motivating ourselves and for managing emotions well in one and our relationships.

EMPIRICAL REVIEW

Creativity and Emotional Intelligence:

McClelland (1996, cited by Goleman, 2011) found that when senior managers had a critical mass of EI capabilities, their division out-performed yearly earnings goals by 20 percent. Goleman (1998), reported that when he calculated the ratio of technical skills, IQ and emotional intelligence (EI), identified in competency models from 188 companies as ingredients of excellent performance; EI was found to be twice as important as the other for jobs at all levels. His analysis showed that emotional intelligence played an increasingly important role at the highest levels of the company, where differences in technical skills are of negligible importance. Using broad and preliminary findings Cherniss and Goleman (2001) reported a cost-benefit analysis on the economic utility of selecting, training and developing EI based competencies is as much as eight times the return on investment (ROI) compared with non-EI based training.

Azeez, (2015) investigated the moderating impact of EI and brainwriting creativity skill training programmes in enhancing peace-building skills among secondary school students. The result revealed that participants in the treatment groups demonstrated enhanced capacity in peacebuilding than their counterparts in the control group. Orija (2015) researched brainstorming and brainwriting training programmes as strategies for fostering creativity among civil servants in Ogun State. He reported that brainstorming and brainwriting were effective in enhancing and engendering the creativity of civil servants.

METHODOLOGY

The Research Design

This study employed a 3x 3x2 factorial, experimental design. The factors in the study are treatments, at three levels- Simplex, APCAW and control group; emotional intelligence at three levels – high, medium and low and gender at two levels- male and female. Participants were grouped into high, medium and low EI levels based on their scores on the Schutte *et al* emotional intelligence scale. Participants were thereafter randomly assigned to treatment and control groups using simple balloting. The pre-tests scores served as co-variates.

Population

The population for the study consisted of managers and senior executives in office document automation companies in Lagos, Nigeria. This included- Xerox, Sharp, Hewlett Packard, Canon, Gestetner, Nashuatec, Panasonic, Kyocera/Mita, Rex/Rotary, in Lagos (IDC West Africa Research, 2015).

Sampling Techniques and Sample Size:

The study employed a multi-stage simple random technique- first, three organisations were randomly selected among office document automation companies in Lagos state; second one hundred and fifty participants (fifty from each company) were randomly selected; and third one hundred and twenty-six participants, who participated in the study, were randomly chosen with gender and emotional intelligence consideration. Selected participants were randomly assigned to treatment and control groups using simple balloting with special regard to their emotional intelligence levels and gender. This assignment of subjects was to ensure that no more than seven (7) male and seven (7) female subjects with high, medium, low emotional intelligence levels fall into a group. This suggested that 42 subjects, made up of 14 high EI, 14 medium EI and 14 low EI were exposed to Simplex, APCAW and Control (Placebo treatment) respectively.

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Instrumentation:

This study made use of two major instruments- Akinboye four-dimension Ibadan Creativity Assessment Scale (ICAS) and the Schutte *et al* 33 items Emotional Intelligence scale. ICAS was used to collect data on business creativity competence, while Shutte et al emotional scale was adapted by the researcher to collect data on participants' levels of emotional intelligence. These instruments were used to obtain information concerning the moderating variable (emotional intelligence) and the dependent variable- business creativity competence.

Procedure for Data Collection

The study was carried out in three phases, at the three locations of the participants- Victoria Island, Lagos Mainland and Ikeja. The procedure for the collection of data for the study was divided into three main phases.

Phase One: The programme commenced with an introductory meeting with participants from each of the three companies to familiarise them with the aims and objectives of the study. The benefits of training to individual participants and organisations at large were also explained. The Schutte et- al Emotional Intelligence Scale was administered on the participants and scores obtained was used to categorise the participants into high, medium and low emotional intelligence levels. Participants were then assigned to treatment and control groups using a simple random sampling technique**.**

Phase Two: Delivery of the training packages: This is the phase where the training packages were taught. The experimental groups were exposed to two sessions, of one hour per session, of lectures, role-plays, and group exercises per week. In all, each of the experimental groups had 12 contact sessions of either Simplex or APCAW training package spanning a total of six weeks. The control group was also exposed to a placebo-training programme spanning six weeks of 12 contact sessions. This session also features the administration of the pre-test on experimental groups and control groups at the beginning of the training programme. Scores obtained were recorded as the entry-level scores for participants.

Phase Three: Evaluation of the treatment packages: Phase three entails evaluation of the effect of emotional intelligence levels on treatment packages and business creativity competence of participants. Post-treatment tests were administered, after the completion of the treatment packages, to determine the effect of the treatment on participants in experimental and control groups. Scores obtained were recorded as the post-treatment scores.

RESULTS

Analysis of Covariance (ANCOVA) was used to analyse data gathered from this study. The hypotheses were tested at a 0.05 level of confidence using a two-tailed test among participants with different levels of emotional intelligence (EI) - high, medium and low.

Hypothesis

H_0: There is no significant difference in the effect of emotional intelligence levels on participant's business creativity competence.

Table 1: Univariate Analysis of Covariance (ANCOVA) for Effect of Emotional Intelligence Levels on Participant's Business Creativity Competence.

	Sum of Squares	Df	Mean Square	F	Sig.
Contrast	2478.946	2	1239.473	4.220	.017
Error	31428.980	107	293.729		

Source: Authors' Computation

F tests the effect of emotional intelligence levels on the creativity competence of participants. This test is based on the linearly independent pairwise comparison among the estimated marginal means. The result in table 1 revealed that there was a significant effect of EI (F (2.107) = 4.220; ($p<0.05$) on the subject's creative competence at a .05 level of significance. A pairwise comparison was carried out by taking the EI levels two by two to know the source of the difference.

Table 2: Pairwise Comparisons of Business Creativity Competence among Participants with Different EI levels.

Dependent Variable: Post Creativity						
I EI	J EI	Mean Difference I - J	Std Error	Sig a	95% Confidence Interval for Difference (a)	
					Lower Bound	Upper Bound
Low EI	Medium EI High EI	-.469 -9.873*	3.789 3.878	.902 .012*	319.685	330.389
Medium EI	Low EI High EI	-.469 -9.404*	3.789 3.763	.902 .014*	320.262	330.750
High EI	Low EI Medium EI	9.873* 9.404*	3.878 3.763	.012* .014*	329.582	340.238

Source: Authors' Computation

The pairwise comparison in Table 2 showed that the source of the difference was between participants with high EI and low EI and participants with high EI and medium EI. There was no significant difference between the creativity level of participants with low EI and medium EI. In other to raise the level of creativity competence of workers, employers of labour may need, therefore, to consider prospective employee level of EI during the recruitment exercise.

DISCUSSION OF FINDINGS

The outcome of this study revealed that emotional intelligence levels (EI) have a significant effect on the creative competence of participants. Results indicated that participants with high EI outperformed participants with medium and low EI on the creativity assessment scale used for the study. This implied that emotional intelligence levels are very important to improve the creativity competence of employees. This finding strongly supports Akinboye's (2003) assertion that the greater an individual's EI, the higher their chances of being creatively and innovatively productive. Finding also lends credence to a study conducted by McClelland (1996 cited by Goleman, 2011) that found that when senior managers had a critical mass of EI capabilities, their division out-performed their yearly earnings target by 20 percent. This also confirmed the findings of (Azeez 2015, 2016; Iro-Idoro, 2014; Orija, 2015 &) that established the efficacy of emotional intelligence in improving the creativity performance of individuals in any setting. This finding also buttressed Bracket, Rivers & Salovey (2011) observation that emotionally astute individuals show greater social functioning, are less engaged in conflict with team members, are more capable of managing stress, and achieve higher job performance.

CONCLUSION & RECOMMENDATION

The study confirmed that emotional intelligence levels have a moderating effect on creativity techniques, in fostering the creative performance of managers in the IT industry. The study also highlighted that participants with high EI out-performed those with medium and low EI in creative competence; therefore, to raise organisational performance, industrial psychologist's

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and human resources practitioners may need to include emotional training and learning into their training and development programme for IT workers.

Against the backdrop of the importance of emotional intelligence in all spheres of business interaction in workplaces, it is recommended that emotional intelligence training be incorporated into training programmes for all employees in organisations- public and private in order to enhance their creative performance on the job.

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NEXUS BETWEEN DOMESTIC INVESTMENT AND MANUFACTURING PRODUCTIVITY IN THE WEST AFRICAN MONETARY ZONE

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ABSTRACT

This paper examined the relationship between domestic investments and manufacturing productivity in the West African Monetary Zone (WAMZ). The six (6) countries in the zone were selected using the panel ARDL framework variant, based on the heterogeneous dynamic panel data modelling. The study covered the period 1999–2019. Secondary data were drawn on selected variables on each country from the World Development Indicator (WDI). The variables of interest are manufacturing value added (MVA), gross fixed capital formation (GFCF), population size, and official exchange rates. The techniques of augmented mean group and common correlated effect mean group were used for the robustness check of the findings. The results of the panel ARDL indicated that none of the explanatory variables was significantly related to manufacturing productivity in the short run. The cointegration relationship was established for all the variables in the long run. Both capital and labour were significant determinants of manufacturing performance. An increase of 1% in capital resulted in a 0.202% increase in manufacturing performance while a 1% increase in population size led to a 6.857% fall in manufacturing output. The error correction term with the coefficient of -0.246 indicated a one-time shock or disequilibrium in the short run was adjusted for at the speed of 24.55% annually. This study, therefore, recommended that government should provide technical and vocational training as well as high-level education to develop and make the large population more productive in both the short run and long run. In the same vein, manufacturing enterprises should employ capital-intensive production techniques to achieve productivity growth. Efforts should be made to create a conducive business environment that will attract both domestic and foreign capital to the zone. The proposed use of common currency, ECO, in the sub-region should be effected to stabilize exchange rate.

Key Words: Manufacturing, productivity, Gross Fixed Capital Formation, domestic investment

JEL Classification Code: L60, L25, O47, C22.

1.0 Introduction

The peculiar nature of economic attributes of countries in the West African sub-region necessitates the review of growth models explaining savings and investments as driving variables of economic performance. These countries are empirically shown to consume more than they produce, and thereby making it difficult to embark on savings at all units. The overall level of productivity is also affected by the level of domestic investments. There are conflicting

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views among scholars and researchers on the significance of domestic investment in accelerating the growth of domestic economies. While some scholars established investment as driving productivity, others empirically realized that economic growth determines investment. However, Meyer and Sanusi (2019) found the existence of bi-directional causality between investment and economic growth. Jhingan (2004) affirms that investment causes lead to increase in the level of income and production by increasing the production and purchase of capital goods. Empirical findings of Carrol and Weil (1994); Blomstro, Lipsey, and Zejan (1996); and Meyer and Sanusi (2019) indicate unidirectional causality running from economic growth to investment. Similar findings are also made by Summers and Heston (1994), Mohsen and Maysam (2013) show that economic growth precedes an increase in investment level.

Anoruo and Ahmad (2002) established that the growth rate of domestic savings propelled economic growth contrary to a priori expectation. On the other hand, Ugwuegbe and Uruakpa (2013) used the ordinary least square (OLS) technique to show that capital formation has a positive and significant effect on economic growth in Nigeria. Shuaib and Dania (2015) used the Harrod-Domar model to investigate the role of capital formation on the economic growth process in Nigeria for the period 1960–2013. The result showed a significant relationship between capital formation and economic development and supported the Harrod-Domar model. It, therefore, implies that the growth rate of GDP directly relates to the capital-saving ratio. The study concluded that the growth of GDP would be greater if the economy saves or invests more out of the given national income. This finding is in line with the Keynesian model of aggregate demand. According to Posu (2005), the higher the level of consumption, investment, and government spending, the higher the national income and the greater the prospect for the economy to experience growth.

Although economic theory expects domestic investments to determine manufacturing productivity positively, the outcome of models used in developed economies may be different from developing economies on similar macroeconomic variables. The six countries in the West African Monetary Zone (WAMZ) are all developing economies. Orji, Uche and Ilori (2014) accounted that the WAMZ was established in April 2000 and Mogaji (2017) comprising Ghana, Guinea, Liberia, Nigeria, Sierra Leone, and The Gambia as member countries. WAMZ, according to Mogaji (2017) and Orji, Uche and Ilori (2014), was set up to achieve certain objectives, which include fast-tracking monetary integration of the region, and actualizing ECOWAS monetary cooperation through the introduction of a single currency. To this effect, Mogaji (2017) notes the four (4) primary and six (6) secondary convergence criteria set by the WAMZ to be achieved by the six countries. The criteria are to strengthen the domestic economies in the process. Despite efforts made by the monetary authorities in the zone to achieve the targets to inaugurate the common currency, 'ECO', it is still difficult to achieve convergence among the member countries on the selected macroeconomic variables. Instead, the zone empirically records a low level of productivity in terms of manufacturing GDP, low levels of income, exchange rate instabilities, low savings, and investment as common attributes.

These outcomes have become a concern to scholars. Mogaji (2017), for instance, observed that WAMZ postponed the introduction of a single currency that was scheduled to take off in January 2015. The author adduced the failure to apparent inadequate preparations and lack of economic convergence among the WAMZ members. The existence of WAEMU creates some challenges to the introduction of a single currency in WAMZ. The Heads of States and Governments of the ECOWAS did not only change their focus, the dropping of the initial to merge WAMZ with WAEMU also was a further shift in the introduction of a single currency for ECOWAS to January 2020.

A Survey of previous studies portrayed the picture of more focus on the nexus existing between domestic investment and economic growth of respective countries and regions investigated. This study, however, emphasized the zonal economy of the West African sub-region. That is, as many scholars have focused research interests and efforts on the relationship between domestic investments and manufacturing performance of specific countries in West African, there are no adequate studies on the impacts of domestic investments, exchange rates instabilities of domestic currencies, and population sizes on manufacturing productivity of the WAMZ countries on a cross-sectional basis. This study aims to bridge this gap with the main purpose of contributing solutions to the non-convergence of countries in the zone.

Therefore, this study is set to analyse the relationship between domestic investments and the manufacturing performance as well as the nature of factor intensity in the six (6) member countries of the WAMZ, which are Ghana, Guinea, Liberia, Nigeria, Sierra Leone, and The Gambia. The study is, at the same time, re-validating the Harrod-Domar model in the WAMZ. For uniqueness, the paper employs a cross-sectional, *au lieu de* specific country case study. The choice of the six countries in this study is based on membership of WAMZ as well as their apparent closely related economic development features such as population growth rate, level of productivity, exchange rate situation, level of capital formation, and technique of production. The relations in those features enhance the validity and reliability of the results of econometric analysis. In this process also, the conclusions drawn on these countries shall represent the understanding of the behaviour of the selected variables in the sub-region. Thus, manufacturing value-added shall be the proxy for productivity as well as the dependent variable; the control or independent variables are gross fixed capital formation (as the proxy for gross private domestic investments), population size, and foreign exchange rate of the member countries. The data on the variables are extracted from the World Development Index (WDI) of the World Bank and analysed in panel forms, to cover the period from 1999 to 2019. The choice of this period of coverage was informed by the availability of data owing to the political and economic instabilities that affected data gathering and availability in the sub-region within the period.

The paper is broken down into five sections to achieve the aims of this study. The next section embodies the review of relevant literature while Section 3 covers the methodology of analysis. In Section 4, the empirical analyses and discussions of findings are presented while Section 5 concludes the paper with recommendations based on empirical findings.

2.0 Literature Review

Economic theories show how savings and investment (capital stock) induce productivity or output, and economic growth. Anyanwu and Oaikhenan (1995) described the Harrod-Domar (H-D) growth model as a theory that was developed to overcome the short-run challenges of the simple Keynesian model. The H-D model is otherwise known as the capital-output ratio (COR). The model tackles both aggregate demand and capacity or stock of productive issues related to investment in an economy. The growth model, among other assumptions, assumes investment as the major engine of economic growth. The key variables of the model are broad aggregates of investment, savings, capital, and output. According to Ott, Ott, and Yoo (1975), the magnitudes of capital and output define the COR while changes in the two variables explain the marginal capital-output ratio (MCOR). The H-D model begins with the specification of saving as a function of income

$$\boxed{S = sY} \quad (1)$$

Investment is, simply, a given change in capital stock

$$\boxed{I = \Delta K} \quad (2)$$

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Any change in capital stock, Δk, leads to change in the output level ΔY (MCOR)

$$\frac{\Delta k}{\Delta Y} = K \quad \text{or} \quad \Delta K = K\Delta Y \quad \text{or} \quad \frac{\Delta k}{Y} \Big/ \frac{\Delta Y}{Y} \qquad (3)$$

Equation 3 is the MCOR. The Keynesian equilibrium is represented by the equality of savings and investment as

$$S = I \qquad (4)$$

On substituting (1) and (3) into (4) gives Equation 5 as

$$sY = K\Delta Y \qquad (5)$$

On dividing (5) by Y gives

$$\frac{sY}{Y} = \frac{K\Delta Y}{Y} \qquad (6)$$

such that

$$s = \frac{K\Delta Y}{Y} \qquad (7)$$

Dividing (7) 7 by K

$$\frac{s}{K} = \frac{K\Delta Y}{KY} = \frac{\Delta Y}{Y} \qquad (8)$$

where s = saving; K = MCOR; $\frac{\Delta Y}{Y}$ = growth rate of output, which is also the rate of change or percentage change in output; and $\frac{\Delta K}{Y}$ is the percentage change in output invested. Logically, the term $\frac{\Delta Y}{Y}$ is a representation of definition of growth, g. Accordingly:

$$g = \frac{s}{K} \qquad (9)$$

Equation 9 explains the growth rate of output or GDP as a ratio of savings to MCOR or incremental capital-output ratio (ICOR). At this growth rate, the producer is satisfied with the level of output and profit, and hence, the term warranted growth rate or entrepreneurial equilibrium. Without any doubt, the growth level can be influenced through policy focus on the magnitude of the components of the warranted growth rate. The warranted growth is under the control of policymakers. Its variables could be manipulated to the desired macroeconomic goals in terms of productivity.

Krugman (1994) defined productivity as a ratio between the volume of output and input. Productivity measures how inputs, especially, labour and capital are efficiently used to produce national output. Kenton (2020) described manufacturing as the processing of raw materials into finished goods with the use of tools, labour, machinery, and chemical processing. According to Efobi and Osabuohien (2016), manufacturing value added (MVA) is the net output of all industries derived after taking the sum of all outputs less the value of all intermediate inputs. Kenton (2020) also viewed MVA as a value-adding process that allows businesses to sell finished products at a higher price above the cost of all inputs and raw materials. Manufacturing productivity, also described as MVA, is an important component of economic growth.

Anyanwu and Oaikhenan (1995) described the investment as the purchase of real tangible assets. Such real and tangible assets include machines, factories, and stocks of inventories. These assets are employed in the production of goods and services for future use rather than present consumption. Investment relates positively to manufacturing productivity. To Samuelson and Samuelson (1981), investment in real capital formation. It entails the production of additional goods in inventories or the production of new plants, houses, and tools. Chiang (1984) explains capital formation as the process of adding to a given stock of capital.

Investment is broken down into various types and categories. Anyanwu and Oaikhenan (1995) describe the types of investment as fixed investment, inventory investment, replacement investment or disposable investment, and real estate investment. Fixed investment refers to the purchases by firms of newly produced capital goods like machinery, newly built structures, and office equipment. Inventory investment refers to changes in the stock of finished products and raw materials that firms keep in warehouses. Replacement investment or disposable investment is executed to replace worn-out capital goods due to continuous utilisation in production processes. Finally, is real estate investment, which refers to the investment in real property and residential constructions.

Besides, Sodersten and Reed (1994) differentiated between portfolio and foreign direct investment. Portfolio investment refers to the purchasing of equity or government debt in a foreign stock market. Loans given to foreign firms too are also classified as portfolio investments. Thus, the purchase of shares in a foreign company and the issuance of bonds by a foreign government are classic examples of portfolio investment. Portfolio investment could be private or official based on the sector of the economy that the fund is sourced. Direct investment captures the act of both purchasing an asset and acquiring control of the asset unlike the case of purchasing and reselling. Foreign direct investment (FDI) refers to the creation and operation of subsidiary companies in other countries (Sodersten and Reed, 1994). Jhingan (2004) elaborated on induced investment and autonomous investment. Induced investment is motivated or influenced by factors like price, wages, and interest rate changes. The factors affect profits and demand. Accordingly, it is elastic. Autonomous investment is not income-dependent, and so, it is income inelastic.

The Nigerian National Accounts, according to Anyanwu and Oaikhenan (1995), defined investment in terms of gross private domestic investment or gross fixed capital formation (GFCF). It, thus, comprises all capital expenditures on residential and non-residential buildings, land improvement, transport equipment, breeding stock and/or fixed investment like machinery and equipment. Posu (2005) stressed domestic investment as comprising investment expenditure in inventories, residential construction, and machinery for the production of commodities. Shuaib and Dania (2015) also classified gross fixed capital formation into two private domestic and public domestic. Gross public investment includes investment by the government and/or public enterprises. Gross private domestic investment is equivalent to gross fixed capital formation plus net changes in the level of inventories. Capital formation propels the production of tangible goods like plants, tools, and machinery and intangible goods such as quality education, high standard health care, scientific research and breakthroughs.

Krugman (2021) referred to gross private domestic capital (GPDC) as the amount of money that domestic firms and businesses invest within their own country. GPDC is classified into four categories. The first is non-residential structures like the construction of business structures such as private office buildings, warehouses, factories, private hospitals, and universities among others. These structures form the geographical location where the production of goods and services occur. The second is non-residential equipment hardware and software like computers and software, machinery, motor vehicles, and desks. The third category includes residential investments like apartments, houses, or single-family homes as well as residential equipment such as computers and software. The fourth refers to change in private inventories. Accordingly, Anyanwu and Oaikhenan (1995) and Posu (2005) observe that of all the aggregate demand components, investment is the most unstable. The unstable nature of investment attracts focus on it as a variable of economic performance.

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A considerable number of empirical studies exist on economic growth or productivity in the WAMZ countries. A noticeable research gap exists in the direction of the relationship existing between investments and manufacturing productivity of all the countries and factor intensity in the zone. Raji (2015) investigated the causal relationship between corporate investment and inflation in four of the WAMZ economies covering the period 1981–2011. The author used trend analysis to find out that among the four selected countries, The Gambia was the only country with a single-digit rate of interest while Nigeria, Ghana and Sierra Leone experienced high economic instability with a high rate of inflation not less than 20% within the study period. In addition, the Granger causality test was used to discover the presence of unidirectional causality and the absence of bi-directional causality among variables in those countries. Raji (2015) reveals that inflation does not Granger cause investment except in Sierra Leone. This implies that inflation promotes investment or that information about past inflation can explain the current investment behaviour. Nevertheless, it showed that investment Granger caused inflation in the selected countries except in Sierra Leone. Here, the past information about investment contributed to the current behaviour of inflation in those countries. Using the short-run dynamics, the study reveals that exchange rate has a positive impact on investment in the zone except in The Gambia. Depreciation of local currencies of those countries reduces the level of investment but increases investment level in The Gambia. Besides, the study established a negative relationship between inflation and exchange rate in The Gambia but a positive one in the other countries. The study is limited to only four out of the six counties in the WAMZ.

Orji, Uche and Ilori (2014) investigated the growth effect on the following capital, flows foreign direct investment (FDI), official development assistance (ODA), foreign private investment (FPI), and remittances in WAMZ during 1981–2010. Using the seemingly unrelated regression estimation (SURE) technique, the study found differences in the growth effect of the foreign capital flows on the countries. In Nigeria, Shuaib and Dania (2015) investigated the investment-growth effect with time series data spanning 1960–2013 and established a significant relationship between the two variables.

Balogun (2007) used data available in the WAMZ countries to examine the monetary and macroeconomic stability perspective in readiness for the creation of monetary unions. The study tested the hypothesis on how independent monetary and exchange rate policies have been relatively ineffective in influencing GDP and inflation as domestic activities. The author employed simultaneous and single equations regression of ordinary least square (OLS) where money supply and credit to the government were used to capture domestic monetary policy. The result showed that money supply and credit to the government have been hurting real domestic output of WAMZ countries. Growth was hampered. Similarly, exchange rate devaluation propelled domestic inflation with no growth-inducing outcomes in the short run.

Mogaji (2017) evaluated the macroeconomic indicators and dynamics of monetary integration for West Africa in WAMZ over the period 1980–2014. Using analysis of variance (ANOVA), the study tested the homogeneity of variables in the zone. The study revealed that, on the aggregation of the six WAMZ economies, Nigeria stood out as the only country that shared similarities with the entire WAMZ. The variables tested for homogeneity were fiscal harmony, the balance of payments accounts, and external trade. Jarju, Nyarko, Adams, Haffner and Odeniran (2016) investigate the relationship between external debt, gross investment, and economic growth in WAMZ using descriptive trend and panel data analyses. The study covered the period 1980–2014. The result confirmed the debt overhang theory. Accumulation of external debt beyond a certain threshold adversely affected economic growth. The crowding-out effect of rising external debt stock (as the co-efficient of external debt service) was negative and statistically significant, but the use of the revenue in productive public investments accelerated economic growth.

Ugwuegbe and Uruakpa (2013) used the OLS technique to examine the effect of capital formation on economic growth in Nigeria from 1982 to 2011. From the study, capital formation has a positive and significant impact on the economic growth of Nigeria. This finding also agrees with those of Bakare (2011) and Orji and Mba (2010). Finally, Aro-Gordon (2017) investigated the causal relationship between currency exchange rate and export growth in Nigeria covering from 1970 to 2014. Using the Granger causality test, the study discovered a unidirectional causality running from exchange rate to export. The implication being that the currency devaluation does not empirically support export in Nigeria.

3.0 Methodology

This section dwells on the econometric methodology for achieving the goal of this study is empirically analyzing the relationship between domestic investments and the manufacturing performance and the nature of factor intensity in the six (6) countries of WAMZ. The methodology begins with the panel Autoregressive Distributed Lag (ARDL) model. The suitability of this technique lies in its ability to capture heterogeneity among the panel series, account for non-stationarity at the maximum of the first difference, produce both long-run and short-run results simultaneously. It is capable of computing the error correction mechanism for which the speed of adjustment to long-run equilibrium is obtained, and address the issue of endogeneity bias (Adekoya and Adebiyi, 2019; and Adekoya, 2020). Besides, the dynamic heterogeneous panel estimators, namely Mean Group (MG) and Pooled Mean Group (PMG) are employed within the panel ARDL framework. Thus, it is specified as follows:

$$\Delta Y_{it} = \delta_{0i} + \delta_{1i}Y_{i,t-1} + \delta_{2i}K_{i,t-1} + \delta_{3i}P_{i,t-1} + \delta_{4i}E_{i,t-1} + \sum_{j=1}^{N_1} \emptyset_{ij}\,\Delta Y_{i,t-j} + \sum_{j=0}^{N_2} \omega_{ij}\,\Delta K_{i,t-j} + \sum_{j=0}^{N_3} \eta_{ij}\,\Delta P_{i,t-j} + \sum_{j=0}^{N_4} \pi_{ij}\,\Delta E_{i,t-j} + \mu_i + \varepsilon_{it}; \quad i = 1,2,\dots,N; t = 1,2,\dots,T. \qquad (10)$$

where *Y*, *K*, *P* and *E*, respectively, denote manufacturing output, physical capital, population, and exchange rate. N_1, N_2, N_3 and N_4 represent the optimal lag lengths of the variables respectively. μ_i denotes the country-specific effects while ε_{it} is the error term that is assumed to be normally distributed with zero mean and constant variance ($\varepsilon \approx 0, \sigma^2$). - $\frac{\delta_{2i}}{\delta_{1i}}$, - $\frac{\delta_{3i}}{\delta_{1i}}$ and - $\frac{\delta_{4i}}{\delta_{1i}}$, respectively, represent the long-run coefficients of investment, population, and exchange rate following the assumption that $\Delta Y_{i,t-j} = \Delta K_{i,t-j} = \Delta P_{i,t-j} = \Delta E_{i,t-j} = 0$ occurs in the long run.

The error correction form of equation (10) can be represented as:

$$\Delta Y_{it} = \alpha_i v_{i,t-1} + \sum_{j=1}^{N_1} \emptyset_{ij}\,\Delta Y_{i,t-j} + \sum_{j=0}^{N_2} \omega_{ij}\,\Delta K_{i,t-j} + \sum_{j=0}^{N_3} \eta_{ij}\,\Delta P_{i,t-j} + \sum_{j=0}^{N_4} \pi_{ij}\,\Delta E_{i,t-j} + \mu_i + \varepsilon_{it} \qquad (11)$$

where $v_{i,t-1} = y_{i,t-1} - \gamma_{0i} - \gamma_{1i}K_{i,t-1} - \gamma_{2i}P_{i,t-1} - \gamma_{3i}E_{i,t-1}$ indicates the linear error correction component for each cross-section. α_i represents the speed of adjustment parameter which corrects for the one-time effect of shocks in the short run. Its estimated value must observe three key features for the long-run relationship to be established in the instance of any short-run disequilibrium. It must be significant, negative, and less than unity in absolute value.

Besides, the long-run parameters, γ_{0i}, γ_{1i}, γ_{2i} and γ_{3i} are for computed coefficients as $-\frac{\delta_{0i}}{\delta_{1i}}$ and $-\frac{\delta_{2i}}{\delta_{1i}}$, $-\frac{\delta_{3i}}{\delta_{1i}}$ and $-\frac{\delta_{4i}}{\delta_{1i}}$ respectively.

A major limitation of the panel ARDL model, however, is that it lacks the empirical ability to handle cross-sectional dependence among panel members. In other words, in the presence of interdependence among cross-sections, the panel ARDL model produces bias results. Against this limitation, cross sections-compliant empirical techniques are developed. Essential for this study are the Common Correlated Effect Mean Group (CCEMG) and the Augmented Mean Group (AMG) respectively proposed by Pesaran (2006) and Eberhardt and Bond (2009). The methodologies are long-run heterogeneous panel estimators with the ability to cater for cross-sectional dependency (Kassouri and Altintas, 2020; Wang and Dong, 2019).

The CCEMG estimator includes the averages of the cross-sections of the dependent variables in the main regression model. Then, they are treated as unobserved common factors in the proposed model. The two-stage procedure is as follows:

Stage 1: $$y_{it} = \emptyset_i + \varphi_i x_{it} + \rho_i \bar{x}_t + \sigma_i \bar{y}_t + \varepsilon_{it} \quad (13)$$

Stage 2: $$\hat{\varphi}_{CCEMG} = N^{-1} \sum_{i=1}^{N} \hat{\varphi}_i \quad (14)$$

where y_{it} represents the dependent variable, x_{it} encompasses the independent variables and $\hat{\varphi}_{CCEMG}$ is the coefficient of the CCEMG estimator.

For the AMG estimator, Eberhardt and Bond (2009) employ dummy parameters to characterize the common dynamic effects, showing the evolution of the unobserved common factors in their original form. The specifications are given as:

Stage 1: $$\Delta y_{it} = \emptyset_i + \varphi_i \Delta x_{it} + \rho_i f_t + \sum_{t=2}^{T} \sigma_i \Delta D_t + \varepsilon_{it} \quad (15)$$

Stage 2: $$\hat{\varphi}_{AMG} = N^{-1} \sum_{i=1}^{N} \hat{\varphi}_i \quad (16)$$

where φ_i is the country-specific parameters, f_t is the heterogeneous unobserved common factor, and $D_t\sigma_i$ is the term that indicates the common dynamic process represented by the time dummy variable, D_t. The AMG coefficient is finally denoted by $\hat{\varphi}_{AMG}$. Moreover, it is worthy of note that, unlike the CCEMG estimator, the AMG is a more flexible estimator due to its ability to impose a unit coefficient on the common dynamic process under necessary conditions. Thus, it is regarded as a more robust estimator than the CCEMG estimator.

4.0 Empirical Results

4.1 Preliminary analysis

Following standard empirical practice in the literature, this discussion commences with the estimated results with the preliminary analyses, which include descriptive statistics, graphical illustration, and stationarity tests. Table 1 shows that the manufacturing valued added and level of investment is still low on average in the member countries of WAMZ following the mean values being 6.4234% and 18.9993% respectively. However, the average population and exchange rate are high. Of course, African countries, such as Nigeria, which belongs to WAMZ, are known for their large population. More so, the majority of these countries, such as Guinea and Sierra Leone, are associated with instabilities in exchange rate, with the currencies experiencing depreciation most times. It could be observed further that the considered variables are widely dispersed.

The huge difference between the maximum and minimum values is further corroborated by the high standard deviation values, which suggest a high degree of variability. Turning to the distribution properties, the series are all positively skewed, indicating a long tail to the right. All the independent variables exhibit excess kurtosis. Manufacturing value added whose kurtosis statistic is 1.8523 falls short of the standard threshold of 3.

Table 1: Descriptive statistics

	Mean	Max	Min	Std. dev.	Skewness	Kurtosis
Y	6.4234	13.9330	1.5330	3.5062	0.2584	1.8523
K	18.9993	54.3040	1.0970	7.4406	1.1201	6.9256
P	33296885	190886311	1231844	55391568	1.8183	4.5890
E	1504.021	9088.319	0.5450	2376.335	1.5306	4.2598

Y, K, P, and E respectively denote manufacturing value-added, gross fixed capital formation, population and exchange rate. Jarque-Bera is usually not a good statistic for panel data due to heterogeneity.

The graphical exposition in terms of trend is considered to trace out any positive co-movements between the main variables, which are the gross fixed capital formation, and manufacturing value-added. As seen in Figure 1, the series exhibit significant variability as also revealed by the standard deviation. Interestingly, the series tend to co-move in all the countries. Particularly, the correlation seems positive in Nigeria, Ghana, Liberia, and Guinea, while it tends to be negative in The Gambia and Sierra Leone. Lastly, the stationarity features of the panel series are examined using three different panel unit root tests, which are classified in the literature as first and second-generation tests. The IPS and Fisher-ADF tests belong to the first generation following the ability to account for cross-sectional dependence among the panel members. However, the power function of these tests is poor when cross-sectional dependence is evident, thus leading to the consideration of the CIPS test, which belongs to the second generation. The results are shown in Table 2 with evidence of mixed stationarities across the panel series. The mixed integration properties of the series give credence to the choice of empirical models employed in this study, which are notable for producing accurate estimates in the presence of non-stationarity of the panel series.

Table 2: Panel unit root tests results

	Without Cross-Sectional dependence				With Cross-Sectional dependence	
	IPS		Fisher-ADF		CIPS	
	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
Y	-1.9120^{b}**	-	21.1074^{b}**	-	-1.5730	-3.735^{a}***
K	-2.5076^{a}***	-	37.8020^{a}***	-	-3.2830^{a}***	-
P	-	-7.60625^{a}***	34.3430^{a}***	-	0.4230	-4.1730^{a}***
E	-	-4.59900^{a}***	-	30.3260^{a}***	-1.7500	-2.9510^{a}**

*Y, K, P and E respectively denote manufacturing value-added, gross fixed capital formation, population and exchange rate. a and b respectively denote model with intercept & trend and model with intercept only. 1% and 5% significance levels are represented by *** and ** respectively.*

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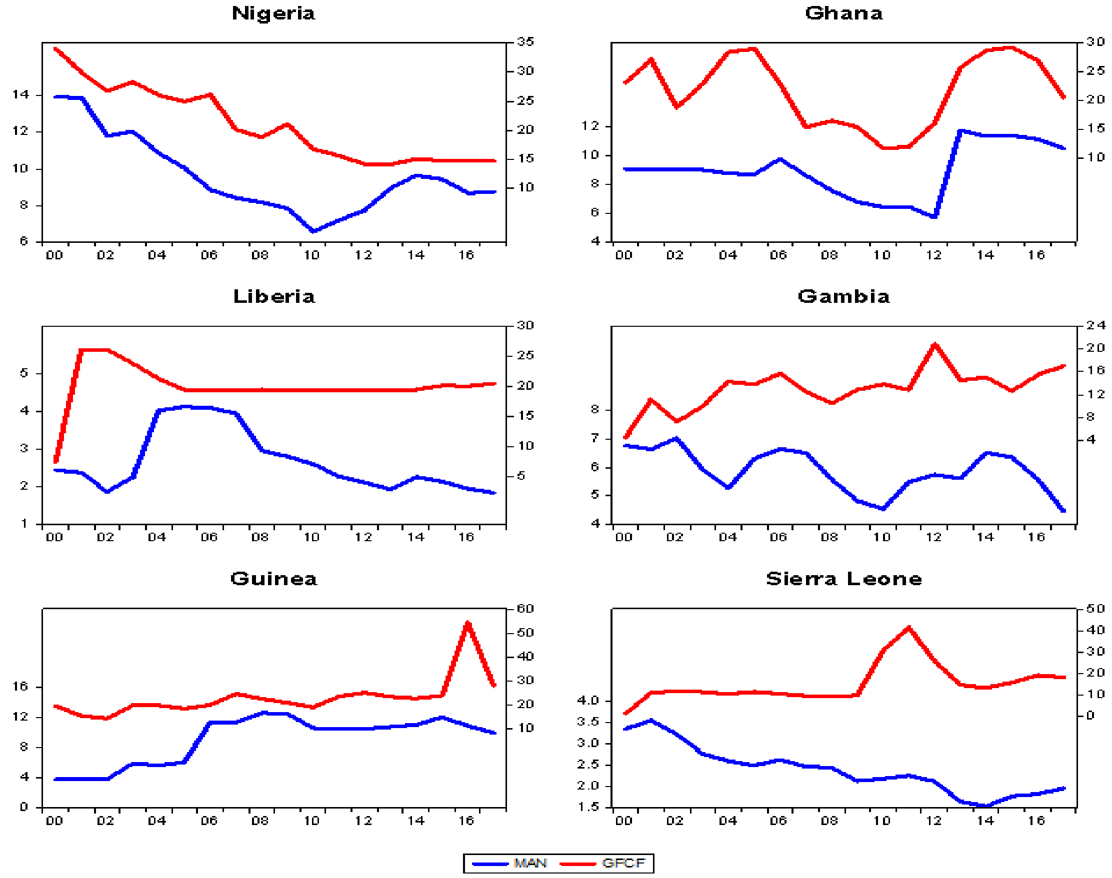

Figure 1: Trends in manufacturing performance and capital stock

4.2 Main empirical results

Due to the distinct attributes, countries, generally, tend to be heterogeneous. Meanwhile, the mean group (MG) and pooled mean group (PMG) estimators usually considered within the general framework of the panel ARDL are also known as dynamic heterogeneous panel estimators. It is therefore required that the possible existence of heterogeneity be first tested. The test of slope homogeneity by Pesaran and Yamagata (2008) is considered appropriate. The null hypothesis of homogeneity is resoundingly rejected at the highest degree of significance, i.e. 1% as displayed in Table 3.

Table 3: Test of homogeneity of Pesaran and Yamagata (2008)

Test	Statistic	Prob.
Δ	4.9660***	0.000
Δ adj	5.8440***	0.000

**** represents significance at 1% critical level.*

This implies that the countries in the WAMZ are heterogeneous. Accordingly, the panel ARDL results for the MG and PMG estimators are presented in Table 4. The most efficient model between the two is judged by the Hausman test under the null hypothesis that the PMG model is preferable. As seen in Table 3, the null hypothesis cannot be rejected, implying that the results of the PMG model are better, and are concentrated on for interpretation. None of the regressors is found to matter for manufacturing performance in the short run as significance cannot be established.

In the long run, however, both capital and population are significant determinants of manufacturing performance. In particular, capital drives manufacturing performance positively as the latter responds to a 1% increase in the former by 0.2019% in the same direction. This is unlike population where the effect is significantly adverse. Manufacturing performance falls by 6.8574% following a rise in population by 1%. The negative effect of population is attributable to the poor human development in the region, and the entire African countries. Moreover, the error correction terms fulfil the three expected features required to establish a long-run relationship among the variables and infer the appropriate speed of adjustment to the long run. It is significant, negative, and less than one in absolute terms. Furthermore, with the coefficient being -0.2455, it implies that a one-time shock or disequilibrium in the short run is adjusted for at a speed of 24.55% annually.

Table 4: Panel ARDL results

	Mean Group (MG)	Pooled Mean Group (PMG)
	Long run Results	
K	-0.0596 (0.1462)	0.2019*** (0.0507)
P	-6.1522 (9.4232)	-6.8574* (4.0837)
E	-0.1169 (2.4609)	0.4512 (1.6688)
	Short run Results	
ΔK	0.0186 (0.0430)	0.0031 (0.0304)
ΔP	-903.4385 (1194.466)	-80.5105 (186.1067)
ΔE	-0.5997 (0.9609)	-1.1019 (0.8361)
Constant	81.6977 (124.829)	29.2641 (21.8035)
ECT	-0.8406*** (0.0955)	-0.2455* (0.148)
Hausman [Prob.]	----------	2.2400 [0.5246]
Log-likelihood	----------	-85.5841
Cross section	6	6
No. of periods	18	18
Observations	108	108

*K, P and E respectively denote gross fixed capital formation, population and exchange rate. *** and * respectively represent significance at 1% and 10% critical levels. Values in parentheses "()", are standard errors, while those in brackets, "[]", are probabilities.*

An attempt is made to employ additional empirical techniques to establish robustness to the findings of this study. These techniques, Augmented Mean Group (AMG) and Common Correlated Effect Mean Group (CCEMG) are long-run estimators, which, in addition to the ability to account for non-stationarity and heterogeneity, can deal with inherent cross-sectional dependence. The results, especially those of AMG, largely mirror the earlier reported results of PMG, with the exemption being expectedly the magnitude of effect (see Table 5). In both models, capital is adjudged a significant driver of manufacturing performance, while the population is only established by the AMG estimator to affect it negatively. Exchange rate is again seen to be poor in explaining the manufacturing performance of the countries belonging to the WAMZ.

Table 5: AMG and CCEMG results

Variables	**Augmented Mean Group (AMG)**	**Common Correlated Effect Mean Group (CCEMG)**
K	0.0893* (0.0474)	0.0470** (0.0199)
P	-36.3652*** (3.9014)	17.4416 (72.4416)
E	1.0953 (1.5732)	-0.9728 (1.4730)
Constant	583.5722*** (65.6326)	-36.2769 (213.5494)

*K, P and E respectively denote gross fixed capital formation, population and exchange rate. *** and * respectively represent significance at 1% and 10% critical levels. Values in parentheses, "()", are standard errors.*

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In the essence, empirical findings in this study largely suggest that both levels of capital stock and population are notable determinants of manufacturing performance in the WAMZ countries, particularly in the long run. The impact is expectedly positive for capital, although still low. This indicates that the countries need to do more in terms of capital formation for manufacturing performance, which aids long-run growth to be enhanced. This validates the assertion of the H-D model that investment is the prime mover of the growth of an economy (Ott, Ott & Yoo, 1975). On the other hand, the impact of population is relatively high, giving evidence of the labour-intensive method of production in the region. Unfortunately, the effect is negative. Responsible for this adverse effect is the low level of investment in labour in the region and virtually all the African countries. Human capital needs to be sufficiently developed, especially the unskilled and semi-skilled labour that are the most employed components of the manufacturing sectors in the countries.

5.0 Conclusion and Recommendations

5.1 Conclusion

This study analysed the relationship between domestic investments and the productive performance of the manufacturing sector as well as the nature of factor intensity in the WAMZ during 1999–2019. The six West African countries examined are Nigeria, Ghana, Liberia, The Gambia, Guinea, and Sierra Leone.

Based on the empirical evidence from descriptive statistics, it is scientifically revealed that the average level of investments, as well as manufacturing productivity in West Africa, is still very low. This is indicated by the mean value of 18.9993% for the GFCF and 6.4234% for the MVA. This is in line with theory as Meyer and Sanusi (2019) stress Keynes as arguing that new and additional investment increases the aggregate demand in the economy. On the other hand, the rate of population growth and exchange rate instability in the sub-region are very high. This is shown by the emergence of a very high population mean of 33,296,885% and an exchange rate mean value of 1,504.021%. This shows that the manufacturing sector has access to a larger pool of labour for use than capital input.

Besides, with graphical trend analysis, the study reveals a positive correlation between investments and manufacturing productivity in four out of the six countries of interest. The four countries are Nigeria, Ghana, Liberia, and Guinea, whereas Sierra Leone and The Gambia have a negative correlation in domestic investment and manufacturing performance. This result implies that the manufacturing productivity increases with the increasing level of investments in Nigeria, Ghana, Liberia, and Guinea while productivity level falls as the level of investment increases in Sierra Leone and The Gambia. This gives a contrary result to a priori expectation of bidirectional causality between investment and economic growth according to Meyer and Sanusi (2019).

Considering the panel analysis, the study uses the empirical evidence of the test of slope homogeneity according to Pesaran and Yamagata (2008). It is scientifically established that countries in the West African Monetary Zone are heterogeneous in economic attributes. Investigating further, the factor intensity of capital and labour by enterprises in the zone and sub-region, using the model of Pooled Mean Group (PMG) estimator, none of the explanatory variables significantly influences the regressand variable, the manufacturing productivity in the short run but in the long run. Both capital and labour inputs significantly impact productivity. More specifically, as domestic investment positively drives manufacturing productivity, population adversely drives it. This means that a larger proportion of the population in the Zone is not productively contributing to output level but the productivity in the zone is mostly induced by the employment of capital factor. In addition, there is an indication by the study that the existing volume of capital is low relative to the population. It equally shows that the prevalence of labour-intensive techniques of production is not helping productivity to grow but the little amount of the available capital employed improves productivity in the zone.

Examining the effect of exchange rate on productivity, the result obtained from the Common Correlated Effect Mean Group (CCEMG) establishes that the exchange rate situation adversely affects productivity in the zone. This shows that the manufacturers use more imported raw materials and components in production processes. This results in high demand for foreign exchange thereby depreciating the domestic currencies in the zone.

5.2 Recommendations

Based on empirical findings, the level of investment is low in the WAMZ countries and this hinders the level of productivity. Therefore, the governments of the countries in the zone should make policies to create a conducive business environment that will attract both foreign and local investors to the zone. There should be adequate infrastructural facilities like good roads, constant electricity and communications network and assurance of adequate security outfits by governments. Moreover, Onyekwena, Ademuyiwa and Uneze (2015) suggested that members should align their investment promotion priorities with their industrialization policies.

The government should improve human capital development in the zone. Technical and vocational education and training centres should be established by both the public and private sectors to provide a semi-skilled labour force that will complement high skilled labour produced in the universities, polytechnics, colleges of agriculture and education. This is necessary because untrained labour remains unskilled, less productive, and sometimes counterproductive.

The study also shows that the method of production used is labour intensive but the large population in the zone is inversely related to productivity. Therefore, the manufacturing enterprises should adopt a capital-intensive method to increase the level of productivity in the short run while the available labour should be trained to acquire the productive skill that will improve productivity in the long run.

The divergence in local currencies' exchange rates should be resolved with the introduction of a common currency in the zone. The common currency will harmonize the cost of production especially with respect to foreign inputs. Thus, the zone should intensify its effort to introduce the proposed common currency, the ECO as a medium of exchange in the sub-region.

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MACROECONOMIC VARIABLES AND STOCK RETURNS OF LISTED OIL AND GAS FIRMS IN NIGERIA

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ABSTRACT

This study examined the effect of macroeconomic variables on stock returns of listed oil and gas firms in Nigeria from 2011 to 2018. Secondary data extracted from the statistical bulletin of the Central Bank of Nigeria and the Nigerian Stock Exchange fact book were used. Augmented Dickey-Fuller (ADF) unit root test was used to check the order of integration of the variables. Johansen Cointegration was used to check the long-run relationship. Error correction model was used to check the speed of adjustment to equilibrium. The study revealed that exchange rate in Nigeria has a positive and significant impact on stock market returns of listed oil and gas firms in Nigeria. The study also revealed that the inflation rate has a negative but significant impact on the stock market returns of listed oil and gas firms in Nigeria. Furthermore, the study revealed that gross domestic product has a positive but insignificant impact on stock market returns of listed oil and gas firms in Nigeria. The study recommended that government should gauge against high/increasing inflationary pressures to curb its retrogressive effect on the oil and gas sector returns and also fashion out ways of holding the movement of the exchange rate such that it does not spiral into thresholds in which it would start to undermine stock market investment, especially in the oil and gas sector.

Keywords: Macroeconomic, Stock returns, Oil and gas, Cointegration, Nigeria.

INTRODUCTION

The stock market has gained visibility and plays a part in financial intermediation in countries of the world by channeling funds from surplus economic units to deficit ones (Osamwonyi, 2015). It is believed that any stock exchange market is an inseparable part of the nation's economy, and serves as a reliable indicator for such an economy. There are many stakeholders mostly investors to every stock exchange of a nation. Okoli (2012) asserts that the markets' critical role ensures that adequate funds are linked to efficient users. A nation's stock market among other things promote investment and serve as a means of portfolio diversification for various economic entities. The market also performs the function of financial intermediation by providing a fund pool for corporations through equity shares (Osamwonyi, 2015).

In capital markets of developed nations, there is evidence connect between stock return and macroeconomic forces and it is supported in literature among studies since the 1970s. The disparity in stock returns has been investigated by a supermodel popularly known as Arbitrage Pricing Theory (APT). Many of the studies focused on developed markets. Studies after the 1980s began to investigate the connection between macroeconomic forces and stock returns in emerging markets. Equity markets in some developing countries until the mid-1980s was hindered due to the continuous defects of the bank in economies orchestrated by inadequate equity capital, liquidity, low foreign investment and low confidence of investors' in the various market (Amadi, et. al., 2015). The stock market has spontaneous reactions to gyrations in key activities of the economy and the perceived future return expectations.

Ali (2011) posits that most developing stock markets are orchestrated by shallow and unstable activities. Often the two aforementioned characteristics of emerging stock markets create macroeconomic factors capable of contributing to the bullish and bearish nature of the market.

Moreover, the continuous interrelatedness between stock returns and macroeconomic forces is largely influenced by information asymmetry and the volatile nature of activities in emerging stock markets. Despite historic data on many emerging markets studied by financial experts, it is observed that the markets' in developing market is more when matched to the developed markets. Nigeria's stock is seen as emerging and largely characterized by instability and shallowness in its activities (Adebiyi, 2005).

Every investor has an intent desire to make a profit from an investment. Although asset portfolio investment opportunities vary across the globe, financial asset investment is well-known. The magnitude of return in the market is influenced by numerous factors. The nature and dimensions of these factors are yet to be ascertained (Okoli, 2012). Evidence from literature on these factors showed that they are associated with the determination of share prices. The evidence available in the literature reveals that heterogeneity exists on the various factors that bringing volatility in the stock returns.

Financial experts adopt the All Shares Index as an indicator to establish the progression of the stock market since it reflects the generality of the market performance. Using the NSE all-share-index as a measurement indicator, it captures all the other performance measures including liquidity, and turnover ratio. All Share Index size and progressive rate largely interrelate with the national growth and development (Owolabi & Adegbite, 2013). It is imperative to continuously assess how various macroeconomic variables affect the stock market in Nigeria. Many researchers have studied the interrelatedness between stock returns and macroeconomic variables, the studies focused on aggregate effect rather than sector-specific. Past related empirical studies on the interrelatedness between macroeconomic proxy and performance of the stock market in Nigeria almost all reflect the annual series of the variables but this study employed the quarterly series of the variables which includes: Nigerian Stock Exchange Oil and Gas Sector Index (NOGIDX), the dependent variable, Exchange rate (EXR), Inflation Rate(INFR) and Gross Domestic Product (GDP) the independent variables which are proxies for macroeconomic factors. The main objective of this study is to examine the effect of macroeconomic factors on the stock returns of listed oil and gas firms in Nigeria.

LITERATURE REVIEW

Theoretical Framework

Two theories, by Markowitz, Sharpe and Miller which are the Capital Assets Pricing Model (CAPM) propounded in 1998, and the popular theory by Ross in 1976 the Arbitrage Pricing Theory (APT) are the most frequently stock market adopted models. This study is anchored on the Arbitrage Pricing Theory (APT).

Arbitrage Pricing Theory

Arbitrage Pricing Theory is a popular theory used by asset pricing experts. The theory was established mainly by Ross in 1976 as a substitute to Capital Asset Pricing Model (CAPM). As a multi-dimensional model, investors accept that the error term in returns of capital assets are built in the influenced factors. Ross (1976) contends that if equilibrium prices offer full transparent opportunities over other known financial assets, then the predictable returns on the portfolio are approximately linearly associated with the beta factor. Conversely, few financial experts accept that the model of expected returns of a portfolio can be expressed as a direct function of macroeconomic variables, where the degree of change in proxy is represented by a specific beta coefficient. Therefore, a modified model derived from the asset model will then be adopted to set the correct price of the asset. However, the asset price will equate to the expected end of period price discounted at a rate (r), implicit to the model. If there is a shift in the asset price, the arbitrage model tends to return it to the equilibrium line. APT is expressed as is in equation (3) as;

$$E(ri) = rf + \beta i1\, RP1 + \beta I2RP2 + \beta I3RP3 + \ldots\ldots\ldots + \beta in\, RPn \qquad (1)$$

Empirical Review

Amadi, Ezeudu and Odili (2015) assessed the effect of inflation on stock market returns in Nigeria from 1981 to 2014. To increase the strength of the study, economic growth was introduced as an explanatory variable. The study utilized the Johansen Co-integration model and Error correction technique to establish long-run and short-run patterns associated with inflation and stock returns. The study found that inflation has a positive and significant effect on stock market returns in Nigeria.

Amaefula and Asare (2014) examined the impacts of inflation dynamics and global financial crises on stock market returns and volatility in Nigeria. The study data were monthly All Shares Index Prices of NSE, and consumers' price index covering the period of (1985 - 2010). Multivariate regression and Generalized Autoregressive Conditional Heteroscedasticity model were used, and the result showed that; inflation has a positive and insignificant impact on stock market returns in Nigeria, also, inflation instability exerts a positive and significant impact on market returns during the world economic crises.

Akinlo (2013) investigated the nexus connecting inflation and the stock price index from 1986 to 2010 in Nigeria. The study utilized the vector error correction model and the results established the presence of a long-term association between inflation and the stock price index. However, the result supports the Fisher effect in the short and long term. This suggests that inflation accelerates stock value in the short and long term.

Issahaku *et al.* (2013) affirm the adverse effect of inflation on stock returns in Ghana with evidence that inflation negatively influences stock returns in the short run, and positively and significantly influences stock returns in the long run. To establish causality, the study purports that there is a unidirectional causality that runs from inflation to stock returns.

Khan and Yousuf (2013) explored the interrelatedness existing between macroeconomic forces and stock prices using monthly data (1992-2011) from the Stock Market of Bangladesh. The study adopted All-Share Price Index secondary data of Dhaka Stock Exchange as stock prices proxy with deposit interest rates, crude oil prices, consumer price index, exchange rates, and broad money supply (M2) as macroeconomic variables the result of the study showed that inflation does not meaningfully impact on stock prices. The study focus to cover the gap of time in literature on macroeconomic variables and stock returns of listed oil and gas firms in Nigeria.

Exchange rate represents the price of a given currency in relation to a unit of another. The value created by various companies that have international affiliation is largely influenced by the exchange rate of the Naira given other world currencies (Osamwonyi 2015). Exchange rate is evidence of a country's external trade with a direct relationship to the balance of payments. Balance-of-payments variations of a nation in connection with the value of external reserve continuously affect exchange rate. Literature is scarce on the effect of exchange rate on stock price behaviour in developing nations. The theoretical postulation posits that there is a positive relationship between exchange rate and stock returns. Maku and Atanda (2010) reveal that stock returns and derogating Naira rates are positively related.

METHODOLOGY

Research Design of the Study

The design of the study is ex-post facto. It used secondary data (time series data). The research design is used to establish the interrelatedness between a variable and another or the effect of one variable on another.

Study Population

The study population consisted of all the listed oil and gas firms on the floor of the Nigerian Stock Exchange from 2011 to 2018. The reason is that the number is manageable and the fact that there are constant changes in the number of listed equities in the stock market.

Nature and Sources of Data

Generally, secondary data were used in this study. The data are time-series data that reflects the quarterly sectoral index of listed oil and gas firms (NOGIDX) in the Nigerian Stock Exchange from 2011 to 2018 (a proxy for Stock Market Returns of Listed Firms), Exchange rate (EXR), Inflation Rate (INFR) for the same period and Gross Domestic Product Growth Rate (GDP) for the same period (proxies for Macroeconomic Factors).

These secondary data were sourced and extracted from existing documents and material. Data collected include data from the Central Bank of Nigeria Statistical Bulletin and Nigerian Stock Exchange Fact Book various issues for the study period from (2011 – 2018).

Model Specification

To investigate the effect of macroeconomic factors on stock market returns of listed firms in the oil and gas sector in Nigeria, the study employed this model that follows the approach adopted in the work of Daferighe and Aje (2009), as they applied the multiple linear regression model as explained below

$$ALSI = \alpha_0 + \alpha_1 RGDP + \alpha_2 INF + \alpha_3 INT + \mu \qquad (2)$$

Where: ALSI= All Share Index; RGDP = Real Gross Domestic Product (RGDP); INF= Inflation Rate; INT = Interest Rate; μ= Stochastic Error Term

Converting Equation 1 into log-linear form, we arrived at the model below:

$$LOGALSI = \alpha_0 + \alpha_1 LOGRGDP + \alpha_2 LOGINF + \alpha_3 LOGINT + \mu \qquad (3)$$

Drawing from equation 2, the model employed for this study is given below as modified:

$$LOGNOGIDX_t = \beta_0 + \beta_1 LOGEXR_t + \beta_2 LOGINFR_t + \beta_3 LOGGDPt + \mu_t \qquad (4)$$

Equation 1 above is a clear example of a log-linear relationship that follows the model specification of the form: $\ln Y = \beta 0 + \beta 1X + u$

The Log form of the above model is due to the large figures that are associated with the variables

The *a priori* expectation of the slope coefficient is: $\beta_0 > 0$; $\beta_1 < 0$; $\beta_2 > 0$; $\beta_3 > 0$

Where: NOGIDX = NSE Oil and Gas Index (a proxy for stock market returns of listed oil and gas firms); EXR = Exchange Rate; INFR = Inflation Rate; GDP = Gross Domestic Product; β_1, $\beta_{1,}$ β_2 and β_3 = Coefficient Parameters of the Variables; μ_t= Stochastic Error Term.

Description of Research Variables

There are two variables used in this study. They are dependent and independent variables.

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Dependent Variable: The dependent variable in this study is the Nigerian Stock Exchange Oil and Gas Sector Index (NOGIDX) which is presented as a proxy for stock market returns of oil and gas firms in Nigeria. This is in line with the work of Daferighe and Aje (2009) that used all share indexes as a dependent variable. The choice of this proxy for stock market return is that it is a reliable proxy for stock market returns.

Independent Variables: The independent variables of this study are Exchange rate (EXR), Inflation Rate (INFR) and Gross Domestic Product (GDP) which are proxies for macroeconomic factors. All the explanatory variables show their quarterly rates within the period under review.

Techniques of Analysis

Various estimation techniques were employed in the study for several to establish the effect of macroeconomic variables on stock market returns of listed oil and gas firms in Nigeria. The techniques include unit root test, Johansen Cointegration, and Error Correction Model, t. The estimate of the stock returns of the listed oil and gas firms in Nigeria will be based on the underlying notion that data are free from problems of unit root. This notion will be confirmed by carrying out the unit root test.

Test of Unit Root

The test for moving average properties of the data marks the first stage in model estimation. This was to avert spurious and misleading results sequel to non-stationary data.

The unit root test developed by Dickey and Fuller (1981) – Augmented Dickey-Fuller (ADF) was used in this study and is expressed thus**:**

$$\Delta y_t = \alpha y_{t-1} + x_t\delta + \beta_1 \Delta y_{t-1} + \beta_2 \Delta y_{t-2} + \ldots + \beta_p \Delta y_{t-p} + \varepsilon_t \qquad (5)$$

Where: y is the series whose unit root is to be determined, p is the lagged difference terms while t stands for the time variable.

Although there are various approaches (Dickey-Fuller test; Phillips Person test and variance root test) for testing time-series data for the unit root problem. In this study, however, the Augmented Dickey-Fuller (ADF) test was adopted. The choice of ADF is informed by its popularity, recommendations and use by various authors including Osinubi, (2001) and Nuhu and Hoti (2011).

Co-Integration Test:

Cointegration test is done to ascertain the presence of co-integrating vectors within the model variables. When this is established, the model is said to have co-integration. Individual sequences are accepted to be integrated of order (0) when they show stationarity at levels, while individual sequences are accepted to be integrated of order (1) when they show stationarity at first differenced and so on. Co-integration test helps to establish the existence of long-run relationships among variables under study. In this study, the Johansen Cointegration test was conducted to ascertain the presence of long term relationships among the macroeconomic variables and stock market returns of listed oil and gas firms in Nigeria

Error Correction Model

To check the short-run relationship between macroeconomic factors and stock returns of listed oil and gas firms in Nigeria the Error Correction Model (ECM) was applied. ECM is stated as follows

$$\Delta NOGIDX_t = a_0 + a_1\Delta EXR_{t-1} + a_2\Delta INFR_{t-1} + a_3\Delta GDP + ECM_{t-1} + \mu_t \qquad (6)$$

RESULTS, PRESENTATIONS AND DISCUSSION OF FINDINGS

Stationarity Tests

Most time series variables are non-stationary and using non-stationary variables in the model might lead to spurious regression results. To overcome this, the study carried out a pre-testing technique involving a unit root test. The Augmented unit root test was carried out and the result is presented below:

Table 1: Unit Root Test

Variables	ADF Values	ADF Critical Values (5%)	Order of Integration
Oil and Gas Sector Index (NOGIDX)	-3.188620	-2.960411	I(0)
Exchange rate (EXR)	3.239457	-2.981038	I(0)
Inflation rate (INFR)	-4.695948	-2.963972	I(1)
Gross domestic product (GDP)	-9.442858	-2.971853	I(0)

Source: Author's Computation

The ADF unit test result above shows that the oil and gas sector index (NOGIDX), exchange rate (EXR) and gross domestic product (GDP) were stationary at levels as their ADF values in absolute terms exceed their critical values at five percent level of significance. However, only the inflation rate became stationary after the first difference.

Table 2: Johansen Cointegration Test

Hypothesized No. of CE (s)	Trace Statistic	0.05 Critical Value	Max-Eigen Statistic	0.05 Critical Value
None	48.98305*	47.85613	33.74383**	27.58434
At Most 1	15.23922	29.79707	10.41374	21.13162
At Most 2	4.825479	15.49471	4.443175	14.26460
At Most 3	0.382304	3.841466	0.382304	3.841466

The co-integration test was carried out to investigate the presence of long-run equilibrium adjustment among the study variables. Sequel to the Johansen co-integration result in table 2 above, the Trace statistic revealed that there exists one co-integrating equation at 0.05 level of significance. Also, the Trace statistic (48.98305) is greater than the critical value (47.8563). More so, when we apply the cointegration test based on the Max-Eigen statistic, the result indicates the existence of one cointegrating equation at a five percent level of significance. From the result, the Max-Eigen statistic (33.74383) also exceeds the critical values (27.58434) at a five percent level of significance. This establishes a long-run association among the variables under study.

Table 3: Parsimonious Result for the Study

Dependent Variable: D(LOGNOGIDX)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.008976	0.018685	-0.480376	0.6351
D(LOGEXR)	0.799662	0.345979	2.311304	0.0155
D(LOGINFR(-1))	-0.233076	0.085410	-2.728909	0.0008
D(LOGGDP(-1))	0.051290	0.283744	0.180762	0.8580
ECM(-1)	-0.260476	0.125290	-2.078985	0.0256
R-squared	0.673266	Adjusted R-squared		0.540988

Source: Author's Computation

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Discussion of Findings

From the result in table 3 above, ECM stands for the error correction term and 'D' is for 1st difference. All the variables showed stationarity hence, the OLS method gives unswerving estimates. From the parsimonious result in table 3 above, it is evident that exchange rate has a positive and significant relationship with oil and gas sector returns (proxied by oil and gas sector index) in the Nigerian Stock Exchange. From the result, a one percent increase in exchange rate dynamics leads to a 0.80 percent increase in oil and gas sector returns in the Nigerian Stock Exchange. The probability value of exchange rate (0.0155) is less than the test significant level (0.05). Hence, we conclude that exchange rate has a significant impact on oil and gas sector returns in the NSE in the long run. This finding supports the views of Maysami and Koh (2000) which found a positive and significant relationship between exchange rate and performance of the Singaporean stock market. Perhaps, this finding can be attributed to the fact that as Nigeria's exchange rate depreciates; it will lead to foreign money inflow and subsequent higher investment in Nigeria. The oil and gas industry has been the bride of the Nigerian economy will heavily benefit from such an inflow of investible funds thereby making oil and gas firms generate more stock returns. Thus, it is not surprising that exchange rate has a positive and significant impact on oil and gas returns in the Nigeria Stock Exchange.

Second, the study reveals that there exists a negative and significant relationship between the one-year lagged inflation rate and oil and gas sector returns (proxied by the oil and gas sector index) in the Nigerian Stock Exchange. From the result, a one percent rise in the inflation rate leads to a 0.23 percent increase in oil and gas sector returns in the Nigerian Stock Exchange. The probability value of the inflation rate (0.0008) is less than the test significant level (0.05). With this, we conclude that inflation rate has a significant impact on stock returns of the oil and gas sector in Nigeria Stock Exchange in the short run. This finding corroborates Daferighe and Charlie (2012) who found that inflation rate exerted a negative and significant impact on the stock market index in Nigeria. Perhaps, this finding can be attributed to the erosion of purchasing power of both individuals and firms in Nigeria by an unabated rise in inflation rate which has largely remained in double digits from 2011 to 2018. As purchasing power gets eroded, investible funds diminish thereby reducing the returns of the oil and gas sector in the Nigerian stock market.

Third, the study reveals that there exists a positive but insignificant relationship between one-year lagged gross domestic product and oil and gas sector returns (proxied by oil and gas sector index) in the Nigerian Stock Exchange. From the result, a one percent increase in GDP leads to a 0.05 percent decrease in oil and gas sector returns in the NSE. The probability value of GDP (0.8580) is greater than the test significant level (0.05). With this, we conclude that GDP has no significant impact on oil and gas sector returns in the NSE in the short run. Perhaps, this finding can be explained by the fact that the oil and gas sector in Nigeria is regarded as an exclusive business for few privileged Nigerians such that many Nigerians do not have the interest and finance wherewithal to invest in the oil and gas firms. Thus, it is not surprising that even amid economic growth in Nigeria, oil and gas stock returns are not adequately impacted upon.

Furthermore, an important feature to notice is the coefficient of the parameter of the error correction term. The coefficient of the error correction term carries the correct sign and it is statistically significant at a five percent level of significance with the speed of convergence to equilibrium of 26 percent. This implies that in the short run, oil and gas sector returns adjust by 26 percent of the past quarter's deviation from equilibrium. This is essential for maintaining long-run equilibrium to reduce the existing disequilibrium over time. This result justifies the use of an ECM specification of the model in the study.

The coefficient of determination measured by the adjusted R^2 shows that 67 percent of the variations in stock markets returns of listed oil and gas firms (proxied by LOGNOGIDX) are explained by changes in the independent variables (exchange rate, inflation rate and gross domestic product). Hence, the remaining 33 percent of the variations are due to other factors (which may be qualitative) not included in the model. More so, the adjusted R-squared value indicates the goodness of the specification model. Finally, the Durbin-Watson statistic of (2.18) shows that there is no presence of autocorrelation being that $2 \leq DW \leq 4$. Most interestingly, the Durbin-Watson statistic exceeds the R-squared value ($DW > R^2$) which indicates that the regression result is not spurious.

CONCLUSION AND RECOMMENDATIONS

Summary of Findings

In line with the study, the following are the findings.

i. The results showed that exchange rate in Nigeria has a positive and significant effect on stock market returns of listed oil and gas firms in Nigeria.

ii. The study found out that inflation rate has a negative but significant effect on the stock market returns of listed oil and gas firms in Nigeria.

iii. The study also found out that gross domestic product has a positive but insignificant effect on stock market returns of listed oil and gas firms in Nigeria.

Conclusion

The study investigated the effect of macroeconomic factors on the stock returns of listed oil and gas firms in Nigeria. Exchange rate, inflation rate and gross domestic product were chosen as proxies for macroeconomic factors while the sectoral index for the oil and gas firms in the Nigeria Stock Exchange served as the proxy for stock market returns. The study made use of quarterly data spanning 2011 to 2018. Findings showed that exchange rate has a positive and significant effect on stock market returns of listed oil and gas firms while inflation rate has a negative and significant effect on stock market returns of listed oil and gas firms in the Nigeria Stock Exchange. However, the study revealed that GDP has a positive but insignificant effect on the stock market returns of listed oil and gas firms in the NSE. In conclusion, the study argued that macroeconomic factors have a significant effect on the stock market returns of listed oil and gas firms in the NSE.

Recommendations

i. The government should gauge against high/increasing inflationary pressures to curb its retrogressive effect on the oil and gas sector returns.
ii. The government should fashion out ways of holding the movement of the exchange rate such that it does not spiral into thresholds in which it would start to undermine stock market investment, especially in the oil and gas sector.
iii. The government should target to further boost its economic growth since the gross domestic product has a positive but insignificant effect on the stock returns of listed oil and gas firms in Nigeria.

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