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## ***EDITORSCOPE***

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# Audit Committee and Financial Reporting Quality: Evidence from Nigeria

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***Abstract***

*Corporate organisations are set up for the purpose of profit. When it is profitable, it attracts more investors. Financial report is the mirror through which investors and would-be investors decide whether to invest in a firm or not. This is achievable if the audit committee is well constituted. Therefore the objective of this study is to evaluate the effect of Audit Committee on financial reporting quality of quoted firms in the oil and gas sector in Nigeria. In this study, literature in related area were reviewed, four hypotheses were proposed, secondary data collected from NSE and CBN statistical bulletin. Regression analysis using the Ordinary Least Square (OLS) technique was used to analysis of the data collected. The result shows an F-value of 4.02 is significant test at 5 percent on the combined effect of the independent variables of FRQ. The F-value has also improved to 0.418, suggesting that the result without ACS has higher significance at 5%. The presence of more independent Directors in the Audit Committee is positive and significant at 5% level on Financial Reporting Quality among firms in the Oil and Gas Sector. Effect of Audit Committee members with professional qualifications is positive and significant at 5% level on Financial Reporting Quality among firms in the Oil & Gas Sector. We therefore recommend that: audit committee should consist more of independent directors since they tend to increase financial reporting quality among the companies; qualified board members who are knowledgeable in financial reporting should be inducted into the audit committee for efficient reporting; board membership should be reduced to an optimal size that will ensure the monitoring role of the board over financial reporting process is not undermined.*

***Keywords:*** *Audit committee, Corporate governance, Financial reporting quality*

**Introduction**

Capital allocation strategies focusing on short-term value may be entirely appropriate for a shareholder, regardless of the length of its investment horizon. The board, however, has a very different role when considering the appropriate use of capital for the company and all of its shareholders. Specifically, the board must constantly weigh both long-term and short term uses of capital (for example, organic or inorganic reinvestment, returns to shareholders, etc.) and then determine the appropriate allocation of that capital in keeping with the company's business strategy and the goal of long-term value creation and reporting. Financial reporting is a fundamental corporate responsibility and a key element of a firm The main objective of financial reporting is to provide high-quality financial reporting information concerning economic entities, primarily financial in nature, useful for economic decision making (IASB, 2008). The concern for quality financial reporting stems from the fact that financial report is the medium by which organizations communicate to the owners and the external society about their operational performance (Mbobo & Nweze, 2015). Thus, information from organisations' annual reports are the main corporate source documents that represent them (the firm) hence, widely used as the main communication medium for conveying corporate activities to stakeholders thereby reducing the level of information asymmetry between the directors, who have first-hand knowledge of the company's information and providers of finance who are external to the company (Kamolsakulchai, 2015).

Users of financial information (such as investors, creditors, customers, regulators, government agencies, analysts, etc.) rely on the information made available to them through company's annual report as a guide for decision-making. The annual report is used to assess the viability of a company and its ability to continue as a going concern (Maharaj, 2015). For financial report to be value relevant, it must be invulnerable to manipulation and free from bias (Modugu, 2014). Financial report, therefore, should aim at providing full, timely, transparent and reliable financial information that is not deliberately prepared to mislead users. It therefore becomes imperative that the report should disclose accurate and reliable information. Hence, such report is expected to be credible, reliable, relevant and acceptable to enable potential investors, lenders, and creditors in making informed decisions (Blue Ribbon Committee, 1999). As noted by Abubakar (2011), when the financial report discloses quality information, the decision of the users of the report could as well be qualitative and informed. Financial report is regarded as being of good quality when it reflects the true financial position and operational performance of the organisation. However, financial information most often are not presented in a credible and reliable manner due to errors, deliberate manipulation of accounting numbers, as well as misrepresentation of earnings (Muhammad, Ayoib & Noor, 2016). Similarly, financial report that has been subjected to manipulations and creative accounting practices is regarded as being of low quality- it symbolizes fraudulent financial reporting (Mbobo & Nweze, 2015) thus, its question of credibility.

Fraudulent financial reporting has contributed to the high rate of business failures globally, and in the Nigerian non-financial sector in recent times, such as the collapse of Enron Corporation, the bankruptcy of WorldCom, the Cadbury Nigeria saga etc. Many shareholders have lost huge investments and their life-time savings in failed companies and as a consequence, many have died of heart attack due to this tragedy. Indeed, many people have committed suicide and many have died because they were unable to pay medical bills, as their monies were trapped in these failed corporations (Sanusi, 2010). To reduce fraudulent financial reporting, improve the quality of financial reporting and strengthen the financial information users' confidence in the financial report issued by companies, the Audit Committee of the Board was recommended to be established by corporate entities (Treadway Commission, 1987), to address this problem. Since then, countries such as the USA, the United Kingdom, Australia, Canada, Malaysia, Singapore, and South Africa (among other countries) all mandated their public companies to establish Audit Committee, as part of their corporate structure. In Nigeria, the Companies and Allied Matters Act (CAMA, 2004), the Securities and Exchange Commission Code (SEC Code, 2011) and the Central Bank of Nigeria's Code of Corporate Governance for Banks (CBN Code, 2006) provide for the establishment of Audit Committee by public companies. While these organisations have formed Audit Committees as a legal requirement, the effectiveness of these committees and the extent to which they can enhance quality financial reporting in Nigeria is, as yet, unknown (Mbobo & Nweze, 2015).

Financial reporting entails the preparation by management of accounting information to meet the requirements of the various users (Badolato, Donelson & Ege, 2014). The Financial Accounting Standards Board (FASB, 2005) specified that economic disclosures ought to make available facts that remain significant for making rational decisions by investors, creditors and other users. Sadly, in recent times, weak internal control and fraudulent activities among others that are visible within companies have posited an inimical cordiality to the general public. This was evident in the recent scandals involving corporate firms such as Enron, WorldCom, Dynegy, Adelphia, Tyco (United States); Maxwell Communications Corporation, Polly Peck International (United Kingdom); Parmalat (Italy); Carrian Group (Hong Kong); HIH Insurance, OneTel (Australia), Cadbury Nigeria Plc, African Petroleum (Nigeria) and so on (Uwuigbe 2011; Odia & Ogiedu 2013; Uwuigbe, Agba, Jimoh, Olubukunola & Rehimetu, 2017), hence, an effective Audit Committee which is an aspect of corporate governance is seen by institutional investors and shareholder activists to be extremely important if investors' must continue to have confidence in the financial report issued by corporate entities. In view of the above, this study is focused on Audit Committee, an aspect of Corporate Governance established to ensure quality financial reporting by corporate entities. The very few conducted were developed economies based, and none considered the *effect of Audit Committee of Oil & Gas marketing sector on financial reporting quality in Nigeria*. Also, while researchers have studied various governance issues, the potential consequence of Audit Committee on monitoring firms' financial reporting quality remains largely unexplored (Ferris, Jagannathan & Pritchard, 2003). Therefore, the overall effect of Audit Committee effectiveness on financial reporting quality is uncertain hence the knowledge gap that drives this study.

## Literature Review

### *The Concept of Audit Committee*

The global financial crisis has raised many questions about the quality of external Audits (Jinadu, Ojeka, & Agbeyangi, 2015). This was as a result of audit failures leading to the winding up of most corporate entities which has been attributed to ineffective corporate governance structure. The collapse of Enron Corporation, the bankruptcy of WorldCom, the Cadbury Nigeria saga and failures of many multi-national firms which are attributable to lapses of corporate governance, were the compelling forces behind the passage of the United States' Public Company Reform and Investor Act of 2002 commonly referred to as the Sarbanes-Oxley Act of 2002 (Okaro, Okafor & Okoye, 2015; Lindberg, 2014). The Act attempts to improve the accountability of organisations and enhanced Corporate Governance (SEC 2011). In essence, the Act attempts to increase the accountability of an entity's Chief Financial Officer, Chief Administrative Officer, its Board of Directors, its Audit Committee, and the

External Auditors (Maharaj, 2015; Lindberg, 2014). Corporate governance issues have been variously discussed globally by scholars (Mohammed & Oladele, 2008; Ofo, 2010; Ojeka, Kanu & Owolabi, 2013) and numerous studies on the *effect of Audit Committee on financial reporting quality* have been extensively conducted in Nigeria in the financial sector after the CBN Banking Reforms in 2009 (Owolabi & Ogbechie, 2010; Uwuigbe, 2013; Ojeka, Iyoha & Obigbemi, 2014) by the then governor of Central Bank, Sanusi Lamido Sanusi. However, not much has been in the non -financial firms in the Oil & Gas sector to the Nigerian economy, little or no research was carried out in this area in developing countries like Nigeria. Section 359 (3) and (4) of Companies and Allied Matters Act (1990) as amended requires quoted firms to establish an Audit Committee. It is the responsibility of the Board of Directors to ensure that the committee is constituted in the manner stipulated and is able to discharge its statutory duties and responsibilities effectively.

SOX (2002) defines Audit Committee as a committee (or equivalent body) established by and amongst the Board of Directors of an issuer for the purpose of overseeing the accounting and financial reporting processes of the issuer and audits of the financial statements of the issuer. The SEC Code of Corporate Governance (SEC, 2011) in Nigeria refers to the Audit Committee as the Committee of Board of Directors and the enterprises shareholders representatives whose specific responsibility is to review the annual financial statements before submission to the Board of Directors. The Audit Committee (the Committee) of the Board of Directors (the *Board*) assists the Board in its oversight of: (i) the financial reporting process and the quality, transparency and integrity of the Company's financial statements and other related public disclosures; (ii) the Company's internal controls over financial reporting; (iii) the Company's compliance with legal and regulatory requirements relevant to the financial statements and financial reporting; (v) the external auditor's qualifications and independence; and (v) the performance of the internal audit function and the external auditor (Kamolsakulchai, 2015). While the Audit Committee has the responsibilities and powers to carryout oversight functions on the company's financial report (Muhammad et al, 2016), it is not the duty of Audit Committee to plan or conduct audits or to determine that the Company's financial statements are complete and accurate and are in accordance with GAAP (KPMG, 2013).

***Audit Committee Financial Expertise and Financial Reporting Quality***

Section 407 of SOX (2002) requires the Securities and Exchange Commission to adopt rules mandating Audit Committees of public firms to maintain at least one member who is deemed a financial expert. Accordingly, some regulators have institutionalised competencies by requiring every Audit Committee member to be financially literate to enhance quality financial reporting, and also demand companies to disclose whether at least one of their Audit Committee members is an *Audit Committee Financial Expert* (SEC 2003). Several studies have defined the concept *Financial Expertise* differently (DeZoort, 1998; DeZoort, Hermanson & Reel, 2002) and have examined its influence on the effectiveness of Audit Committee (Bedard & Gendron, 2010) but with mixed results. Sarbanes–Oxley Act of 2002 (SOX) referred to Audit Committee financial expertise as the Audit Committee members with knowledge and experience in accounting and financial reporting, internal controls, and auditing. SEC (2003) definition of financial expertise, states that financial expertise is evidenced by, (a) education and experience as a principal financial officer, principal accounting officer, controller, public accountant or auditor or experience in one or more positions that involve the performance of similar functions; (b) experience actively supervising a principal financial officer, principal accounting officer, controller, public accountant, auditor or person performing similar functions; (c) experience overseeing or assessing the performance of companies or public accountants with respect to the preparation, auditing or evaluation of financial statements; or (d) other relevant experience. Muhammad *et al.* (2016) opined that accounting or financial expertise is an attribute, qualification or experience acquired by a person before becoming a Board member of a company. Furthermore, Badolato *et al.* (2014) posit that Audit Committee members could be classified as having financial expertise if their biographical information includes terms reflecting accounting experience, experience in supervising the preparation of financial statements or expertise using financial statements. The argument is that Audit Committee's responsibilities often require significant accounting sophistication, in that they involve assessing the reasonableness of complex financial matters.

Audit Committee members with accounting background can decrease the possibility of earnings management and the errors in financial reporting, and thus, increase the quality of financial report (Dhaliwal, Naiker & Navissi, 2010). Similarly, Hayes (2014) documents that firms with a high proportion of financial experts not necessarily accounting experts are not likely to report weaknesses in the internal control over financial reporting. Consequently, Badolato *et al.* (2014) posit that it is not enough to have accounting or financial experts as members of ACs in constraining earnings management, but a combination of financial and accounting expertise of the members. Cohen, Hoitash, Krishnamoorthy and Wright (2014) assert along similar findings of Hayes (2014), but added that AC members with accounting and industrial expertise tend to perform better than those with only accounting or financial expertise. However, findings from the various studies are consistent with the expectation that an Audit Committee member with financial/or accounting expertise enhances committee performance. In this study the concept *financial expertise* shall be subsumed by accounting expertise, hence, Audit Committee members with accounting expertise in this context shall be seen as those who hold professional membership of any recognised professional accounting bodies in Nigeria (e.g. ICAN, ANAN, CPA, CITN, CIMA, ACCA etc.), and shall be used to measure financial expertise and by extension financial reporting quality. It is on this premise that we propose our first hypothesis which states thus:

*$HO_1$: Audit Committee financial expertise has no significant effect on financial reporting quality.*

***Audit Committee Size and Financial Reporting Quality***

Audit Committee Size is the number of membership of the Audit Committee chosen by the governing bodies (Yousef, Nur Hidayah, Khairil & Mohammad, 2014). The number of Audit Committee members is particularly important as it affects the commitment of members to monitor management and detect deceitful behaviours. The number of members on an Audit Committee may have effect on its effectiveness and decisions (Jensen, 1993; Yermack, 1996), it is a characteristic that is regarded to be significant for the successful discharge of its duties (Cadbury Committee, 1992; Al-Matari, Al-Swidi, Fadzil & Al-Matari, 2012). Audit Committees should consist of a minimum of three Directors (Blue Ribbon Committee, 1999; the US-SEC, 1999; SOX, 2002). In the United States, most of the Audit Committees are composed of three or four directors; while Pricewaterhouse (1993) suggests three to six Directors as the optimum number. The Cadbury Report (1992) and the Smith Report (2003) stipulate that the number of Audit Committee members must be at least three. The Nigerian Code on Corporate Governance recommends there should be at least three non-executive Directors in the Audit Committee, a majority of whom should be independent. CAMA (2004) however, recommends a maximum of six

Directors for Audit Committees in Nigeria. According to SEC Code of Corporate Governance (2003), members of the Audit Committee should consist more of independent non-executive Directors, with a non-independent director as chairman. The members should be numerate, able to read and professionally interpret basic financial statements, possess the quality of integrity, honesty, business and risks in order to achieve quality financial reporting.

The resource dependence theory states that, a larger Audit Committee means the members can bring more resources to the firm, such as experience and expertise, which contribute to the Audit Committee's effectiveness in monitoring management, hence leading to high-quality financial reporting. Okaro *et al.* (2015) argued that size is not necessarily a determining factor in its effective functioning, while Ahmad-Zaluki, Nordin and Hussin (2009) as well as Al-matari and Al-Swidi (2012) are not so persuaded arguing that a large Audit Committee can be counterproductive as more members may lead to unnecessary debates resulting in delayed decisions (Al-matari & Al-matari, 2012). Also, Bedard, Chtourou and Courteau (2004) argued that the larger the Audit Committee, the more likely it is to uncover and resolve potential problems in the financial reporting process because it is likely to provide the necessary strength and diversity of views and expertise to ensure effective monitoring. On the contrary, Karamanou and Vafeas (2005) are of the view that an Audit Committee can suffer from process losses and diffusion of responsibility if it becomes too large. Based on the reviews, our second proposed hypothesis states thus:

*$HO_2$: Audit Committee size has no significant effect on financial reporting quality.*

***Audit Committee Independence and Financial Reporting Quality***

The Audit Committee plays a vital role in ensuring the independence of the audit process. Where auditors are hired by the management and they decide the scope of auditing services and auditor's compensation, the audit process is unlikely to be perceived as independent (Sarkar & Sarkar, 2010). Auditors should avoid being unduly influenced (independent) by a vested interest and to being free from any constraints that would prevent a correct course of action being taken. Independence is an ability to *stand apart* from inappropriate influences and to be free of managerial capture, to be able to make the correct and uncontaminated decision on a given issue (Campbell, 2011). The Audit Committee was established to protect the auditor and stakeholders from the pulls and pressures of management, and as a reinforcing agent to the independence of internal and external auditor (Deli & Gillan, 2000); and be independent of an organisation's management to perform the oversight role and protect shareholders interests (Al-lehaidan, 2006). One of the factors found to have influenced the independence of the member of the Audit Committee was the tenure of the Director on the Board of the specific company (Sharma & Iselin, 2012). The independence of Audit Committee members should be enhanced by subjecting it at least to annual review and more often as necessary. Companies that are required, in terms of the Companies Act, to appoint an Audit Committee should have policies in place to facilitate timely identification of changing relationships or circumstances that may affect the independence of Audit Committee members.

*$HO_{3:}$ Audit Committee independence has no significant effect on financial reporting quality.*

***Audit Committee Frequency of Meetings and Financial Reporting Quality***

Regulators and others have often expressed strong preference for an Audit Committee that meets frequently. The Treadway Commission (National Commission on Fraudulent Financial Reporting, 1987), the Public Oversight Board (1993), the SEC Chairman Levitt (1998), and the Blue Ribbon Committee (BRC) (1999), emphasized on the importance of frequent Audit Committee meetings as it allows for better communication between Audit Committee members and Auditors (both external and internal). The formal and informal processes undertaken by the Audit Committee in conducting its affairs for effective and quality financial reporting is through continuous meetings and regular attendance by members (Mbobo & Nweze, 2015). To effectively discharged their responsibilities, it is argued that Audit Committee needs to be active and diligent (Hines & Peters, 2015). Audit Committee diligence has been operationalized by the number of committee meetings held during the financial year (Davidson, Godwin & Kent, 2005; Abbott, Parker & Peters 2004; Xie, Davidson & DaDalt, 2003), with the expectation that the more often a committee meets the more likely it is to efficiently carry out its duties (Dobija, 2015; Hoyt & Liebenberg, 2015, Bryan, Liu & Tiras, 2004). The ability of the Audit Committee to uncover any financial irregularity and resolve problems in the financial reporting process will depend largely on the frequency with which the committee meets to consider issues affecting the company (Yousef *et al.* 2014).

Conversely, Oktorina and Wedari (2015) suggest that external auditors perceived companies that have more Audit Committee meetings to have greater risk and therefore, conduct more audit work thus, increase the audit fees while Yang and Krishnan (2005) as well as He, Labelle, Piot and Thornton (2013) found no evidence of a significant relationship between the number of Audit Committee meetings and earnings management. Nevertheless, the various corporate governance codes (both the US and Nigeria), have not made any categorical statement on the frequency of Audit Committee meetings. Section 12 of the SEC Code of Corporate Governance provides that the Board of Directors (BOD) should meet at least once every quarter; but completely silent on Audit Committee meetings. It is however expected that since Audit Committee reports to the Board of Directors (BOD), its meetings should precede the BOD's meeting hence, the need for Audit Committee members to also meet at least once a quarter. Effective Audit Committee should meet regularly to ensure that the financial reporting process is functioning properly, therefore, a well-functioning and active Audit Committee may be able to prevent earnings management and enhance financial reporting quality (Yousef *et al.*, 2014).

***Empirical Studies***

Numerous studies such as Ahmad-Zaluki and Wan-Hussin (2012), Metawee (2013), Mansor, Ch-Ahmad, Ahmad-zaluki and Osman (2013), Zaki-Nik-Salleh and Mohd-Hassan (2014), Yousef *et al*. (2014), Soliman and Ragab (2014), and Maharaj (2015) have investigated the impact of Audit Committee on financial reporting quality in developed economies. Though, most of these studies empirically examined the relationship between Audit Committee characteristics and earnings management, but revealed mixed and inconclusive results. Soliman and Ragab (2014) studied the relationship between Audit Committee Independence and effective audit quality and earnings management practices of more active 50 Egyptian non-financial companies listed on the Egyptian Stock Exchange during the period 2007-2010. The result indicates that Audit Committee independence have significant negative relationship with earnings management and quality audit report. In the same vein, Maharaj (2015) examined the effect of Audit Committee independence on the quality of the annual report in South Africa and Indian firms respectively using twelve South African and three Indian companies across three industries (Banking, Mining and Retail). They found that independence did have a positive impact on the effectiveness of the Audit Committee, hence high quality reporting of a company. In their study, Yousef *et al.* (2014) studied the relationship between the Audit Committee characteristics (independence, size, meetings, and financial expertise), external audit (audit firm size, audit fees) and financial reporting quality among industrial companies listed on Amman Stock Exchange (ASE), Jordan and found a significant positive relationship between independence, financial expertise, and financial reporting quality while a negative relationship subsists between Audit Committee size, audit fees, audit firm size and financial reporting quality.

In contrast, Waweru and Riro (2013) used panel data of 148-firm years obtained from the annual report of the 37 companies listed on the Nairobi Stock Exchange, the study found that independence of the Audit Committee is not significantly related to earnings management. Moreover, Siregar and Utama (2008) used the Indonesian companies listed on the Jakarta Stock Exchange to examine the effectiveness of some corporate governance practices on earnings management. Their sample contains 144 firms and covers the periods 1995–1996, and 1999–2002. They failed to detect a relationship between audit committees' independence and earnings management. Habbash (2011) found an insignificant relationship between independent Audit Committees and earnings management by using a sample that consists of all companies listed on the Saudi Stock Market and that covers the period of 2006-2009. In relation to Malaysian studies, Mansor *et al.* (2013) report a negative relationship between Audit Committee independence and earnings quality; while Ahmad-Zaluki and Wan-Hussin (2012) show a positive relationship.

**Methodology**

This study adopted the *ex-post facto* research design. The reason for adopting this design is that requisite data were not manipulated but sourced from secondary materials. According to Asika (2006), *ex-post facto* research is a systematic empirical study in which the researcher does not in any way control or manipulates the independent variables because the situation already exists. The quantitative research method was adopted in analysing the content of the corporate annual report of the selected listed firms because it uses numbers that ensure precision in measurement to describe a phenomenon (Fitz-Gibbon & Morris, 1987). This approach was appropriate because it allowed the researcher to collect data from a pool of financial statements to evaluate the effect of Audit Committee on financial reporting quality. The population of the study consists of twelve (12) non-financial firms in the Oil & Gas sector operating in Nigeria as at 31st December, 2017. According to the Nigerian Stock Exchange record (NSE, 2017), a total of twelve (12) Oil & Gas firms were listed on the Nigerian Stock Exchange as at 31st December, 2017. Therefore the population of the study is all (12) non-financial firms in the Oil & Gas sector listed on the Nigerian Stock Exchange as at 31st December, 2017. We adopted secondary data which were obtained from the corporate annual report of the firms as listed on the Nigerian Stock Exchange as at 31st December, 2017. Consistent with prior studies (Dechow, Sloan & Sweeney, 1995; Jaggi & Leung, 2007), a cross-sectional regression of the modified Jones Model (1995) was used to obtain the discretionary component of accruals which was used to measure financial reporting quality in this study. The choice of the modified Jones model (1995) was informed by the argument of Dechow, Sloan and Sweeney (1995) who noted that the model is more powerful in detecting earnings management. Therefore, discretionary accrual is estimated as:

$$DISACC_t = TACC/TA_{t-1} - [\beta_0 ( 1/TA_{t-1}) + \beta_1(\Delta REV_t/TA_{t-1}) + \beta_2(PPE_t/TA_{t-1})] \text{--------}(1)$$

Where:

$DISACC$ = Discretionary accruals of the firm in year t

$TACC$ = Total accruals of the firm in year t

$TA_{t-1}$ = Total asset of the firm at the end of the year t-1

$\Delta REV_t$ = Change in net sales of the firm between year t-1 and year t

$PPE_t$ = Gross property, plant and equipment in year t

$\beta_0, \beta_1, \beta_2$ are the estimated coefficient from the following cross-sectional regression.

The study adopted the Discretionary Accrual (DISACC) as proxy for Financial Reporting Quality (FRQ), hence, the Financial Reporting Quality used in the model below is equal to Discretionary Accruals.

The model for the study is specified thus:

$$FRQ = \beta_0 + \beta_1 ACFE + \beta_2 ACS + \beta_3 FACM + \beta_4 ACIND + \mu \text{ ----- } (2)$$

Where:

FRQ = Financial Reporting Quality
ACFE = Audit Committee Financial Expertise
ACS = Audit Committee Size
FACM = Frequency of Audit Committee Meetings
ACIND = Audit Committee Independence
$\mu$ =Error term
$\beta_1, \beta_2, \beta_3 > 0$ = unknown coefficients of the explanatory variables

Regression analysis using the ordinary least square technique was utilized for the analysis of the data. The variables of this study are: Financial Reporting Quality (estimated using the modified Jones model, 1995); Audit Committee Financial Expertise (number of Audit Committee members with professional qualifications); Audit Committee Size (average number of Audit Committee members); Frequency of Audit Committee Meetings (number of Audit Committee meetings to total meetings); and Audit Committee Independence (the proportion of independent/non- executive directors on the Audit Committee) as presented in Table 1 below:

**Table 1: Measurement of Variables**

| **Variable** | **Measure** | **Expected Sign** | **Existing studies** |
|---|---|---|---|
| FRQ | Financial reporting quality measured by modified Jones model | + | Jones (1991), Dechow & ichev(2002),Schipper and Vincent (2003),Dechow, Sloan &Sweeney (1995) and Jaggi & Leung (2007), Dechow (1996), Teoh (1993), Ching (2002) and Klein (2002) |
| ACFE | Number of Audit Committee members with professional qualifications | - | Zheng (2008), Carcello and Neal (2003), Haniffa & Hudaib (2006) |
| ACS | Average number of Audit Committee members | + | Aboody, Hughes & Liu (2005) |
| FACM | Number of Audit Committee meetings to total meetings | + | Aboody, Hughes & Liu (2005) |
| ACIND | The proportion of independent/non-executive directors on the audit committee | + | Beest, Braam, and Boelens, (2009); IASB, (2008). |
| DISACC | Discretionary accruals of the firm in year t | + | Modified Jones Model (1995) and Wysocki (2009) |
| TACC | Total accruals of the firm in year t | + | Hribar and Nichols, (2007) and Jaggi and Leung, (2007) |
| $TA_{t-1}$ | Total asset of the firm at the end of the year t-1 | + | Modified Jones Model (1995) and Nikolaev, (2014) |
| $\Delta REV_t$ | Change in net sales of the firm between year t-1 and year t | + | Dechow and Dichev, (2002) |
| **$PPE_t$** | Gross property, plant and equipment in year | + | Ball and Shivakumar (2006) and Dechow, Sloan and Sweeney (1995) |

**Source: Researchers' compilation from various sources (2019)**

## Data Analysis and Results

### *Descriptive Statistics*

Descriptive statistics show the summary and other basic characteristics of data. The summary statistics for the variables in the study are presented for individual variables for the combined response groups of the samples in the study in Table 2 below. The average response for financial reporting quality is -12.41, with median value of -0.71. This wide disparity in financial reporting among the firms is further buttressed by the high standard deviation of *FRQ* at 101.91 and high negative skewness of -7.36. Apparently, more of the firms in the study demonstrated higher financial reporting quality in the sample with wide outliers bordering on very low quality of reporting. Thus, the result reveals that many firms have generally impressive financial reporting standards in Nigeria. The descriptive statistics for the other variables are rather unwieldy in their analysis. However, the general outcome indicates that audit committee membership and quality are not too high for the selected firms. We applied the Jarque-Berra (J-B) coefficients which revealed the degree of normality, and hence the heterogeneity of the data series. Highly heterogeneous series are the precursors for cross-sectional or panel estimation test procedures. The J-B value for each of the dependent variable (FRQ) is very high and adequately passes the significance test at the 1 percent level (since the probability value is zero). This indicates that the assumption of normality in the data cannot be accepted: the series for FRQ is therefore shown to be non-normally distributed. The implication of this is that the series across individuals or groups are heterogeneous and would actually require a panel data based estimation technique.

**Table 2: Descriptive Statistics**

| | Mean | Median | Std. Dev. | Skewness | Kurtosis | J-B | Prob. |
|---|---|---|---|---|---|---|---|
| *FRQ* | -12.41 | -0.71 | 101.91 | -7.36 | 56.25 | 7630.78 | 0 |
| *ACFE* | 1.52 | 1 | 0.85 | 1.93 | 6.92 | 75.49 | 0 |
| *BFACM* | 4.22 | 4 | 0.69 | -0.31 | 2.12 | 2.88 | 0.24 |
| *ACIND* | 2.62 | 3 | 0.83 | 0.08 | 4.17 | 3.49 | 0.17 |
| *ACS* | 4.87 | 5 | 1.31 | -0.16 | 1.67 | 4.68 | 0.10 |
| *BM* | 4.47 | 4.5 | 0.57 | -0.43 | 2.18 | 3.57 | 0.17 |
| *BS* | 8.8 | 8.5 | 2.46 | 0.04 | 1.86 | 3.24 | 0.20 |

**Source:** Authors' Computations

Further examination of the characteristics of the data is demonstrated in the correlation between pairs of variables in the model. The study considered the relationships among the explanatory variables in the model for the study. Table 3 (correlation matrix) below, the relationship between ACFE and ACIND is negative and very low, which implies no relationship between number of Audit Committee members with professional qualifications and the proportion of independent/non- executive directors on the audit committee. This indicates that among the audit committee members in most of the firms, internal/executive directors tend to be more professionally qualified. The correlation between ACFE and the other variables is positive and significant, suggesting that, among other things, the selected companies in the sample tend to attract more audit members with professional qualifications. Board size (BS) has positive and significant correlation with each of the other variables in the model, indicating that the larger the board size the more audit committee members the firm would have also.

**Table 3: Correlation Matrix**

| | ACFE | ACIND | FACM | BM | ACS |
|---|---|---|---|---|---|
| ACIND | -0.075 | | | | |
| | (0.57) | ----- | | | |
| FACM | 0.267 | 0.178 | | | |
| | (0.04) | (0.17) | ----- | | |
| BM | 0.404 | 0.208 | 0.603 | | |
| | (0.0) | (0.11) | (0.0) | ---- | |
| ACS | 0.336 | 0.533 | 0.276 | 0.291 | |
| | (0.01) | (0.0) | (0.03) | (0.02) | ----- |
| BS | 0.574 | 0.295 | 0.285 | 0.481 | 0.665 |
| | (0.0) | (0.02) | (0.03) | (0.0) | (0.0) |

**Source:** Authors' Computations

***Regression Analysis***

The effect of Audit Committee on financial reporting quality is empirically determined by analysing the regression result from the estimated model. In estimating the equation of the model however, the presence of heteroskedasticity must be taken into account since the dependent variable is itself estimated (Lewis & Linzer, 2005; Anderson, 2014). A weighted Generalized Least Squares estimation technique is therefore better suited to produce unbiased and consistent estimation, hence FGLS technique is used. The results of the estimated models are reported in Tables 4 and 5 below. For the initial result in Table 4, the diagnostic statistics are average, with an adjusted R-squared value of 0.34, indicating that 34 percent of the systematic variations in financial reporting quality among the companies were captured in the model. The F-statistic value of 4.02 is above the significance level of 5 percent, indicating that the combined effect of the independent variables on FRQ is significant. Furthermore, only the coefficients of the proportion of independent/non- executive directors on the audit committee (ACIND) and board meetings (BM) passed the 5 percent level of significance.

**Table 4: Initial Fixed Effects Estimates (Period SUR)**

| *Variable* | Coefficient | t-Statistic | Prob. |
|---|---|---|---|
| *C* | -5.529 | -0.15 | 0.88 |
| *FACM* | 1.178 | 0.16 | 0.88 |
| *ACFE* | 9.062 | 1.45 | 0.15 |
| *ACIND* | 15.335 | 2.31 | 0.03 |
| *ACS* | -0.564 | -0.11 | 0.91 |
| *BM* | -18.73 | -2.18 | 0.04 |
| *BS* | 2.353 | 1.03 | 0.31 |
| *R-squared* | 0.45 | | |
| *Adjusted R-squared* | 0.34 | | |
| *F-statistic* | 4.02 | | |

**Source:** Authors' Computations (2019)

The results indicate that only the composition of Audit Committee and the number of board meetings have significant impact on the quality of financial reporting among the firms. The coefficient of ACIND is positive, hence more independent members in the Audit Committee, we produce quality financial reports. On the other hand, the coefficient of BM is negative, and shows that the more the board meetings, the less the quality of financial reporting among Nigerian companies. A particular component of the selected variables is the average number of Audit Committee members (ACS) which has a very high probability value of 0.91. It is the coefficient with the highest t-value, and it has a very strong positive relationship with Board Size (BS). This can lead to the problem of multicollinearity in the estimated model. On ACS, the result of the adjusted model without ACSs presented on Table 5 indicates that the F-value is 0.418, signifying a high result without ACS. From the new result, the coefficients of ACIND, BM and the number of Audit Committee members with professional qualifications (ACFE) are significant at 5 percent level of significance. From this result, the coefficient of ACFE is positive and significant, revealing that without taking the number of Audit Committee members into consideration, the qualifications of the audit committee members matter a lot in determining the quality of financial reporting among the firms.

**Table 5: Fixed Effects Estimates (Period SUR)**

| Variable | Coefficient | t-Statistic | Prob. |
|---|---|---|---|
| *Constant* | -9.856 | -0.27 | 0.78 |
| *FACM* | 1.512 | 0.21 | 0.83 |
| *ACFE* | 8.663 | 2.44 | 0.02 |
| *ACIND* | 15.38 | 2.84 | 0.01 |
| *BM* | -18.83 | -2.87 | 0.01 |
| *BS* | 2.475 | 1.25 | 0.22 |
| *R-squared* | 0.507 | | |
| *Adjusted R-squared* | 0.418 | | |
| *F-statistic* | 5.7 | | |

**Source:** Authors' Computations (2019)

We employed a test of heteroskedasticity model. Woodridge (2004) has noted that such investigation gives direction on the appropriate estimation technique to be used in emotion. Thus, a highly heteroskedastic set of observations may lose efficiency properties when estimated with the ubiquitous OLS technique. It should be noted that the Breusch-Pagan-Godfrey tests are used for the analysis. Only the F-value for the test results for each of the models in the study is reported in Table 6 below. The F-statistics result has probability value of less than 5 percent. This means that the null hypothesis of no heteroskedasticity for each of the models is accepted. The non-significance of the test statistics indicates the presence of homoscedasticity in data series for each of the models. This implies that the use of FGLS in the estimation of the relationship was appropriate.

**Table 6: Heteroskedasticity Test: Breusch-Pagan-Godfrey**

| | | | |
|---|---|---|---|
| F-statistic | 0.743954 | Prob. F (6,53) | 0.6168 |
| Obs*R-squared | 4.660739 | Prob. Chi-Square (6) | 0.5880 |
| Scaled explained SS | 86.23033 | Prob. Chi-Square (6) | 0.0000 |

***Test of Hypotheses***

*Hypothesis 1*

With the coefficient of Audit Committee expertise at 5 percent level since the probability of t-value is less than 0.05, the null hypothesis is rejected and the alternative hypothesis thus, Audit Committee expertise has a significant impact on financial reporting quality.

*Hypothesis 2*

The result of the coefficient of Audit Committee Size failed the significance test at 5 percent level of significance since the probability of t-value is higher than 0.05. The Audit Committee size (ACS) has a very high probability value of 0.91 (the highest t-value) thus, the null hypothesis is accepted at 5 percent level of significance, thus, Audit Committee Size has no significant impact on financial reporting quality.

*Hypothesis 3*

The coefficient of ACIND in the model is significant at 5 percent level with a t-value of 2.84 and a probability of less than 0.05. The coefficient of ACIND is positive, suggesting that with more independent members in the audit committee, the better the quality of financial reporting among the firms. Hence, the null hypothesis is rejected implying that Audit Committee Independence has a positive impact on financial Reporting quality ($HA_3$).

*Hypothesis 4*

The coefficient of Audit Committee frequency of meetings in the model is not significant at 5 percent level of significance with a t-value of 0.21 and a probability that is more than 0.05. The coefficient of FACM is positive, suggesting that the more the frequency of Audit Committee meetings, the lower the quality of financial reporting among the firms. Hence, the null hypothesis is accepted at 5 percent level of significance, implying that the frequency of Audit Committee meetings has no significant impact on financial Reporting quality.

**Conclusion and Recommedations**

We studied the effect of Audit Committee on Financial Reporting Quality among Nigerian companies in the Oil & Gas Sector and our findings are as follows: (i) The presence of more independent Directors in an Audit Committee is positive and significant at 5% level on Financial Reporting Quality among firms in the Oil & Gas Sector, (ii) The frequency of Audit Committee meetings is positive but statistically insignificant at 5% level. This shows that Audit Committee members' frequency of meeting weakens the quality of Financial Report of firms in the Oil & Gas Sector, (iii) The presence of Audit Committee members with professional qualifications in the Audit Committee has a positive and significant effect at 5% level on Financial Reporting Quality among firms in the Oil & Gas Sector and (iv) that Audit Committee size has a negative and insignificant effect at 5% level on the Financial Reporting Quality of firms in the Oil & Gas Sector.

Several studies have been carried out on the effect of Audit Committee on financial reporting quality in Nigeria, but with mixed outcomes. Empirically, we tested the effect of Audit Committee expertise, independence, size, frequency of meetings on financial reporting quality in Nigeria. Our study covered a period of five years (2013-2017) in the Oil & Gas sector. The need for Audit Committee cannot be swept under the carpet and shareholders need their contributions towards the growth of the business as adequate financial report constitutes much in attracting would-be shareholders. Based on the findings, we recommend as follows: accountants, auditors, firm management, investors, creditors, suppliers, financial analyst, lobby groups, community members, government and the regulatory bodies responsible for setting standards; (ii) audit committee should consists more of independent directors since they tend to increase financial reporting quality among the companies; (iii) Qualified board members who are knowledgeable in financial reporting should be inducted into the audit committee of the company to permit informed judgment and decisions; and (iv) Board size should be reduced to an optimal size that will ensure the monitoring role of the board over financial reporting process is effective and not undermined.

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**Appendix 1**

Dependent Variable: FRQ
Method: Panel EGLS (Period SUR)
Date: 30/05/19 Time: 10:58
Sample: 2013 2017
Periods included: 5
Cross-sections included: 12
Total panel (balanced) observations: 60
Linear estimation after one-step weighting matrix

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | -5.529170 | 37.87926 | -0.145968 | 0.8845 |
| FACM | 1.178071 | 7.564714 | 0.155732 | 0.8769 |
| ACFE | 9.062381 | 6.254202 | 1.449007 | 0.1537 |
| ACIND | 15.33526 | 6.649034 | 2.306389 | 0.0254 |
| ACS | -0.563945 | 4.972296 | -0.113417 | 0.9102 |
| BM | -18.73447 | 10.66251 | -1.757042 | 0.0452 |
| BS | 2.352998 | 2.291482 | 1.026845 | 0.3095 |

Effects Specification

Period fixed (dummy variables)

Weighted Statistics

| | | | |
|---|---|---|---|
| R-squared | 0.450658 | Mean dependent var | -0.184395 |
| Adjusted R-squared | 0.338548 | S.D. dependent var | 0.959669 |
| S.E. of regression | 0.789069 | Sum squared resid | 30.50885 |
| F-statistic | 4.019766 | Durbin-Watson stat | 1.014652 |
| Prob(F-statistic) | 0.000470 | | |

Unweighted Statistics

| | | | |
|---|---|---|---|
| R-squared | 0.113215 | Mean dependent var | -12.40855 |
| Sum squared resid | 543350.4 | Durbin-Watson stat | 2.433924 |

Dependent Variable: FRQ
Method: Panel EGLS (Period SUR)
Date: 30/05/19 Time: 14:22
Sample: 2013 2017
Periods included: 5
Cross-sections included: 12
Total panel (balanced) observations: 60
Linear estimation after one-step weighting matrix
Period SUR (PCSE) standard errors & covariance (d.f. corrected)

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | -9.855571 | 27.65837 | -0.266332 | 0.7831 |
| FACM | 1.512376 | 5.521516 | 0.213906 | 0.8253 |
| ACFE | 8.662841 | 3.773985 | 2.435410 | 0.0219 |
| ACIND | 15.38440 | 3.816154 | 2.841388 | 0.0112 |
| BM | -18.82889 | 8.238572 | -2.865455 | 0.0126 |
| BS | 2.474738 | 1.421832 | 1.250527 | 0.2179 |

Effects Specification

Period fixed (dummy variables)

Weighted Statistics

| | | | |
|---|---|---|---|
| R-squared | 0.506675 | Mean dependent var | -0.195207 |
| Adjusted R-squared | 0.417876 | S.D. dependent var | 1.021312 |
| S.E. of regression | 0.787782 | Sum squared resid | 31.03000 |
| F-statistic | 5.705891 | Durbin-Watson stat | 1.056102 |
| Prob(F-statistic) | 0.000020 | | |

Unweighted Statistics

| | | | |
|---|---|---|---|
| R-squared | 0.112474 | Mean dependent var | -12.40855 |
| Sum squared resid | 543804.3 | Durbin-Watson stat | 2.429293 |

**Appendix 11**

**Oil & gas firms listed on the Nigerian Stock Exchange as at 31st December, 2017**

1. Mobil Plc.
2. Anino International Plc.
3. Capital Oil Plc.
4. Conoil Plc.
5. Eterna Plc.
6. Forte Oil Plc.
7. Japaul Oil & Maritime Services Plc.
8. MRS Oil Nigeria Plc.
9. Oando Plc.
10. Rak Unity Pet. Comp. Plc.
11. Seplat Petroleum Development Company ltd.
12. Total Nigeria Plc.

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**Tax Reforms and the Nigerian Economy: 1994-2014**

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***Abstract***
*The study was designed to evaluate the impact of tax reforms on economic development of Nigeria (1994-2014). The research design adopted in this study was the ex-post facto research design. To achieve the objectives of this study, two specific objectives and two research questions were raised while two research hypotheses were formulated. The independent variable was measured by Petroleum Profit Tax (PPT), while economic development was proxy by Gross Domestic Product (GDP) and Infrastructural Development (ID). The study made use of secondary data which were collected from the Central Bank of Nigeria (CBN) and Federal Inland Revenue Service (FIRS). Data obtained were analysed using Chow test statistical tool with the aid of Eview version 7.0. Findings show that tax reforms actually impacted positively on the economic development. The findings also showed that tax reforms impacted the economy in both the pre-reform periods and post-reform periods. Based on the findings, the study recommended that the practice of reforming the Nigerian tax system should be upheld in order to continue to increase the total revenue of Nigeria. The practice of reforming the Nigerian tax system is inevitable and should be carried out every four years in order to continue to increase the total revenue of Nigeria especially at this period of global drop in the price of oil.*
***Keywords:*** Economic Development, Nigeria, Petroleum Profit Tax, Tax Reforms.

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**Introduction**

In most countries of the world, the primary objective and purpose of taxation is essentially to generate revenue or raise money for government expenditure on social welfare. The importance of taxation lies primarily in its ability to boost capital formation for development and growth of the economy; and also assisting in the regulation of consumption pattern resulting in economic stabilization and effective redistribution of income (ICAN, 2006). According to Azubuike (2009), *tax is a major player in every society of the world*. The tax system is an opportunity for government to collect additional revenue needed to discharge its pressing obligations. A tax system offers itself as one of the most effective means of mobilizing a nation's internal resources and it lends itself to creating an environment conducive to the promotion of economic growth. Nzonta (2007) in his opinion stated that taxes constitute key sources of revenue to the Federation account shared by the Federal, State and Local governments. Appah (2004) and Oyandonghan (2011) stated that tax is imposed to regulate the production of certain goods and services, protection of infant industries, control of inflation, stimulation of growth and development, income redistribution, and so on. Tosun and Abizadeh (2005) stated that *taxes are used as proxy for fiscal policy*. A system of taxation will vary from one country to the other because it is a socio/political and economic model representing society's social, political and economic needs and aspiration at any given time (Soyode & Kajola, 2006). As a result of this, Nigerian tax system is dynamic and is continually changing to meet the needs of the constituents of the society, hence the need for tax reform in Nigeria. Tax is dynamic, so reforms are necessary to effect the required changes in the national economy (Ola, 2001). Azubuike (2009) observed that tax reform is an on-going process with tax policy makers and tax administrators continually adopting the tax systems to reflect changing economic, social and political circumstances in the economy. Economic development is a qualitative process and refers to structural change of economic and social infrastructure in an economy, which allows an increase in the standard of living in a nation's population (htt://www.studymode.com/essays). It is also referred to as the quantitative and qualitative changes in the economy. Such actions can involve multiple areas including development of human capital, critical infrastructure, regional competitiveness, environmental sustainability, social inclusion, health, safety, literacy and other initiatives. The definition of economic development given by Michael Todaro is an increase in living standards, improvement in self-esteem made and freedom from oppression as well as a greater choice (htt://www.diffen.com/difference/economicdevelopmentvseconomicgrowth). The main purpose of economic development is to raise the standard of living and the general well-being of the people in the economy.

The discourse on tax reforms and economic development has attracted a robust landscape in extant literature (Olabiyi, 2005; Brownson & Medley, 2003; Falae & Olabiyi, 2005; Ahmed & Nashra, 2009; Mensah, 2010). The centrality of it to nation building is a major underlying factor that has attracted much scholarly and secular concern. Governments of developing nations, according to Falae and Olabiyi (2005) and Gbateman (2009), have made several attempts either fiscal or monetary targeted at growing the economy. There are hitherto reforms across sectors basically with the objective of economic growth and overall development but, Ndadaye (2007) through his empirical work, showed that the various macroeconomic parameters such as Gross Domestic Product, unemployment level, and so on that best describe the state of the economy are uninterestingly fluctuating and at best declining. The importance of macroeconomic indicators such as Gross Domestic Product (GDP), infrastructural development, education, health sector development, youth and social development, transportation sector development and so on to a developing nation like ours cannot be over emphasized, as their deficit are some of the binding constraints to growth in the economy. After the broadening of the Nigerian tax system and the total revenue base of the nation, economic development seems to have not recorded appreciable improvement. Omesi (2007) observed that *the role of taxation in promoting economic activities and development in Nigeria is not felt primarily because of poor administration as a result, the economy has remained in deep slumber*. Ogbonna (2009) noted that the administration of petroleum profits tax in Nigeria has mainly been focused on revenue generation to the detriment of stimulating economic growth and development. Osuala and Jones (2014) submit that, there have been wastages, some spending has been politicized and there has been high level of misappropriation, mismanagement and corruption. Hence one is poised to ascertain whether the increase in the total revenue base of the nation has really impacted on the economic development of Nigeria. Tax has been mentioned in the works of Olukoshi (2005) and Olabiyi (2005) but the ability of tax to stimulate economic growth results from the deliberately designed regimes that encourage compliance by all who should pay.

However, many studies have been carried out on taxation and tax reforms but most of them were carried out overseas such as

Bonu and Motau (2009), Roshazia (2011), Lee andGordon (2005), Ferede and Dahly (2012) and Wang (2013), and their results may not apply generally to other countries especially Nigeria due to several peculiarities of our local environment. Most the tax reform studies that relate to Nigeria have to do with economic growth, revenue generation and investment as evident in the studies of Ogbonna and Appah (2012), Oriakhi andAhuru (2014) and Nwokoye and Rolle (2015), undermining economic development. A situation where results of cross country researches in developed economies are generalized to developing countries often induce knowledge gap. Therefore, this study seeks to close the gap in Nigeria by empirically investigating the effect of tax reforms on the economic development of Nigeria.

To the best of our knowledge, the latest of these previous studies on tax reforms and economic growth is Ogbonna and Appah (2012) who used time series annual data for their analysis which covered the period from 1994-2009, in our thinking is not a recent study. Furthermore, most of these studies on taxation and tax reforms that relate to Nigeria used only Gross Domestic Product (GDP) to proxy economic growth, but in this study we used Gross Domestic Product (GDP) and infrastructural development to proxy economic development.

Tax reform is operationalized in this study to mean changes put in the Nigerian tax system in order to increase total revenue base of the nation. They are reviews necessary to effect the desired changes in the nation's economy. The dependence on oil revenue by all tiers of government in Nigeria has made the federal government to reform the existing tax laws. The need to address the problem of over dependence on oil led to several tax policy reforms. The tax policy reviews of 1991-1993, 2002- 2004, 2007, 2011, as well as the yearly amendments given in the annual budgets were geared towards addressing this issue. The main aim of the study was to investigate the effect of tax reforms on Nigeria's economic development. The specific objectives include to:

1. Investigate whether there is any significant relationship between petroleum profits tax and Gross Domestic product (GDP) in the pre-reform period; and

2. Investigate whether there is any significant relationship between petroleum profits tax and Gross Domestic product in the post- reform period.

Based on the specific objectives, the following Research questions are raised to include the following:

1. What is the relationship between petroleum profits tax and Gross Domestic product in the pre-reform period?

2. What is the relationship between petroleum profits tax and Gross Domestic Product in the post-reform period?

The hypotheses are:

1. There is no significant relationship between petroleum profits tax and Gross Domestic Product in both the pre-reform and post reform periods.

2. There is no significant relationship between petroleum profits tax and infrastructural development in both the pre reform and post- reform periods.

**Literature Review**

***Conceptual Review***

***Tax Reform***

According to Oriakhi and Ahuru (2014), tax reform is simply the series of action by Nigerian's government to promote the tax system. Tax reform is the process of changing the way taxes are collected or managed by the government. Tax reformers have different goals. Some seek to reduce the level of taxation of all people by the government. Some seek to make the tax system more progressive or less progressive. Others seek to simplify the tax system and make the system more understandable or more accountable. Numerous organizations have been set up to reform tax systems worldwide often with the intent to reform income taxes or value added taxes into something considered more economically liberal (Wikipedia, The Free Encyclopaedia). It is not novel as Nigeria has embarked on series of tax reforms. The several tax reforms were designed to broaden the tax base, reduce the tax burden on tax payers, restore the confidence of the tax payer on the tax system and prompt voluntary compliance on the part of the tax payer. On the whole, the ultimate goal of tax reform is the enhancement of revenue generation (Oriakhi & Ahuru, 2014). The essence of tax reform in both developed and developing countries of the world is the reduction or eradication of fiscal deficits through appropriate restructuring of the tax systems to attract higher revenue or to improve the revenue elasticity or buoyancy of the tax structure. Tax reform is, therefore, a deliberate design to increase revenue, improve efficiency, and promote equity, (World Bank, 1991). Institutional aspects of tax reforms involve the semi-autonomous revenue authority model, where traditional line departments are separated from the ministry of finance and gradual legal status of semi-autonomous revenue authorities (Oriakhi & Ahuru, 2014). The dependence on oil revenue by all tiers of government in Nigeria has made the Federal Government to reform the existing tax laws (Ogbonna & Appah, 2012).

Tax reform became imperative in Nigeria because of the nature of tax structure, which according to Anyanwu (1997) was complex, inelastic, inequitable and unfair. Moreover, the country depended on import and export duties, where there were no opportunities to generate revenue through consumption based tax such as VAT. The dependency of the country on taxes relating to foreign trade activities had made the revenue base of the country to be very unstable (Oriakhi & Ahuru, 2014). In addition, the Nigeria's tax base was very narrow while the tax rate was very high. According to Odusola (2006), the country's tax system is lopsided, and dominated by oil revenue. He also noted that it is characterized by unnecessary complex, distortionary and largely inequitable taxation laws that have limited application in the informal sector that dominates the economy. In order to address this problem several tax policy reforms were made. The tax policy reviews of 1992, 1993 and 2003, as well as the yearly amendments given in the annual budgets, were geared towards addressing this issue. However, no remarkable achievement was recorded. Odusola (2006) noted the following as are some of the reasons for tax reforms in Nigeria: First, there is a compelling need to diversify the revenue portfolio for the country in order to safeguard against the volatility of crude oil prices and to promote fiscal sustainability and economic viability at lower tiers of government. Second, Nigeria operates on a cash budget system, where proposals for expenditure are always anchored to revenue projections. This facilitates determining the optimal tax rate for a given level of expenditure. Thus accuracy in revenue projection is vital for devising an appropriate framework for sustainable fiscal management, and this can be realized only if reforms are undertaken on existing tax policies in order to achieve some improvement. Third, Nigerian tax system is concentrated on petroleum and trade taxes while direct and broad-based indirect taxes like the value added tax (VAT) are neglected. This is a structural problem for the country's tax system. Although direct taxes and VAT have the potential for expansion, their impact is limited because of the dominance of the informal sector in the country. Furthermore, the limited formal sector is supported with strong unions that act as pressure groups to deter any appreciable tax increment from gross income. Fourth, the widening fiscal deficit that over the years has threatened macro-economic stability and prospects for economic growth makes the prospect of tax reform very appealing. The ratio of deficit to GDP averaged 9.98 and 5.0 percent for the periods 1990-1994 and 1999-2001, in 1993 it was 15.5 percent (Odusola, 2006).Fifth, the study groups on the review of the Nigerian tax system in 1991 and 2003 highlighted the need to increase tax revenue and reduce expenditure as the major fiscal issues to be addressed. As such, the primary objective of the Committees was to optimize revenue from various sources within the country. Finally, the necessity to improve the tax notification procedure was underscored in order to facilitate effective evaluation of the performance of the Nigerian tax system and to promote adequate planning and implementation. The Nigerian tax system has experienced series of reforms since 1904 to date (Ogbonna & Appah, 2012).

The effects of the various reforms in the country are as follows: Introduction of income tax in Nigeria between 1904 and 1926; grant of autonomy to the Nigerian Inland Revenue Service 1945; the Raisman Fiscal Commission of 1957; formation of Revenue Board in 1958; the promulgation of the Petroleum Profits Tax Ordinance No. 15 of 1959; the Promulgation of Income Tax Management Act 1961; the tax force on tax administration of 1978 headed by Alhaji Shehu Musa which brought about the introduction of withholding tax regime; establishment of Federal Inland Revenue Service (FIRS) as the operational arm of the then Federal Board of Inland Revenue (FBIR); introduction of Value added tax (VAT) in 1993 and tax policy and administration reforms amendment 2001 and 2004 (Bassey, 2013). The latest tax reforms embarked upon by government include the: the following enactments by the National Assembly: Capital Gains Tax Act, 2004; Companies Income Tax Act, 2004; Companies Income Tax (Amendment) Act 2007; Education Tax Act, 2004; Industrial Development Act, 2004; Personal Income Tax Act 2004 and Personal Income Tax (Amendment) Act, 2011. Others are Federal Inland Revenue Service (Establishment) Act, 2007; Petroleum Profits Tax Act, 2004; Stamp Duties Act, 2004; Value Added Tax Act, 2004; Value Added Tax (Amendment) Act, 2007 and National Information Technology Agency Act, 2007 (Bassey, 2013).

***Petroleum Profits Tax (PPT)***

The Petroleum Profits Tax Act (1959) provides for the imposition of tax on the chargeable profits of companies that are engaged in petroleum operations in Nigeria. The objectives of petroleum taxation, according to Nwete (2004), are numerous among which are: taxing in the petroleum industry is a way of achieving government's objective of exercising right and control over the public asset, government imposes very high tax as a way of regulating the number of participants in the industry and discouraging its rapid depletion in order to conserve some of it for future generation. The second objective is that the high profit profile of a successful investment in the oil industry makes it socio-political and economic obligations to the citizenry. The third objective is to make petroleum taxation an instrument for wealth re-distribution between the wealthy and industrialized economies represented by the multinational organizations, who own the technology, expertise and capital needed to develop the industry and the poor and emerging economies from where the petroleum resources are extracted. The main focus of petroleum profits tax (PPT) is the upstream sector of the petroleum industry, which deals with oil exploration, prospecting, development and production.

***Sources of Nigerian Tax Laws***

According to (ICAN, 2006), the sources of Nigerian tax laws are:

(a) *Customary Laws* - These are the Native Laws and Customs governing the taxation of incomes, goods and properties of persons or communities within an ethnic group. Included under this heading is the Islamic law which is the basis of Moslem laws that are usually applicable in the Northern part of Nigeria. Examples are:

(i) *Ishakole:* payable in Yoruba land to titular heads of communities or Obas on the produce from the farmland.

(ii) *Osusu-Mkwu:* Applicable in the Eastern part of Nigeria.

(iii) *Zakkat:* Tax payable by adherents of the Islamic faith on their wealth, which has been in the possession for a full year, such wealth includes money; properties, etc. The Islamic law provides the basis for determining the amount of tax payable and to whom payable.

(b) *Statute Laws* – These are tax legislations passed by Acts of the National and State Assemblies and by-laws by Local Government authorities in a democratic government or Decree or Edicts under a Military Government. These legislations confer necessary powers on the taxing authorities to impose tax on citizens; that is, individuals, companies, trusts, settlements, etc. Examples of such tax legislations are:

(i) The Personal Income Tax Act, 1993.
(ii) The Companies Income Tax Act, 1990.

(c) *Case Laws* – This is the doctrine of *stare decisis*, that is, judicial precedents. Under this doctrine, judgments pronounced by superior courts of records, namely; High Courts, Appeal Courts, and Supreme Court on principles of tax laws and their interpretations of the provisions of tax statutes are binding on the lower courts.

In view of the fact that Nigerian tax laws had their origin from the English tax laws, it would not be out of place to state that the principles of English common law pronounced upon by the Judges in England and interpreted by them also form another source of Nigerian tax laws. This position is buttressed by the decision in the case of ADERAWOS TIMBER TRADING CO. LTD. V FEDERAL BOARD OF INLAND REVENUE (1966) LL.R 195, (1969) ALL NLR 247. In the case, it was held that the decision of English Courts can be invoked for the purpose of interpreting Nigerian tax statutes where the expression and terms used are similar and substantially the same as those in English statutes.

***Legal Framework for Tax Audit and Investigation***

The Federal Inland Revenue Service (FIRS) is empowered by the various tax Acts to conduct tax and investigations. Some of the relevant sections of the tax Acts are reproduced hereunder:

*Section 3(1) of Petroleum Profits Tax Act, Cap. P13, LFN 2004:*

The due administration of this Act and the tax shall be under the care and management of the Board who may do all such acts as may be deemed necessary and expedient for the assessment and collection of the tax and shall account for all amounts so collected in a manner to be prescribed by the Minister.

*Section 2(1) of the Education Tax Act. E4, LFN 2004:*

The provisions of the act relating to the collection of companies income tax or petroleum profits tax shall, subject to this Act, apply to the tax due under this Act.

***Economic Development***

In strictly economic terms, development has traditionally meant achieving sustained rates of growth of income *per capita* to enable a nation to expand its output at a rate faster than the growth rate of its population. Levels and rates of growth of real per capita gross national income (GNI) (monetary growth of GNI *per capita* minus the rate of inflation) are then used to measure the overall economic well-being of a population – how much of real goods is available to the average citizen for consumption and investment (Todaro & Smith, 2011). As time went on and with an increasing number of economists and policymakers who clamoured for more attacks on, wide-spread absolute poverty, increasingly inequitable income distributions and rising unemployment become a characteristics of underdevelopment. Economic development during the 1979s was redefined in terms of the reduction or elimination of poverty, inequality, and unemployment within the context of a growing economy. Economic development is a qualitative process and refers to structural change of economic and social infrastructure in an economy. There are at least three basic components or core values that serve as a conceptual basis and practical guidelines for understanding the inner meaning of development. These core values are sustenance, self-esteem, and freedom. These core values represent common goals sought by all individual and society. Todaro and Smith (2011) see sustenance to mean ability to meet basic needs, self-esteem to mean to be a person; a sense of worth and self-respect, of not being used as a tool by others for their own ends, while freedom from servitude means to be able to choose.

*Gross Domestic Product (GDP)*

Gross Domestic Product is the market value of all final goods and services produced within a country in a given period. It is internationally recognized indicator for measuring the size of an economy in a given period of time, (http:www.thidraylivercomparticles/GDP-rebasing/175578). The most common measure of the amount of stuff produced in the economy is termed Gross Domestic Product (ECON, 2006). Gross Domestic Product is total currency value of final goods and services produced in an economy over some time period/year. For example U.S GDP in 2005 was $12,000 trillion while the GDP *per capita* (per person) was $12 trillion/300 million = $40,000, (Chioma, 2009). The Gross Domestic Product (GDP) of Nigeria is made up of the following sectors: Agriculture, industry, building and construction, wholesale and retail trade and services. Small-scale enterprises (SSE) occupy a significant percentage of each sector of the GDP of Nigeria, (Anyanwu, Offor, Adesope & Ibekwe, 2013). The Gross Domestic Product (GDP) of Nigeria is broken down into consumption expenditure, investment, government spending and export. On the other hand, consumption expenditure is composed of consumer spending on goods and services, which is often divided into spending on durable goods, non-durable goods and services, (Chioma, 2009). *Per capita* GDP of an economy is obtained by dividing the total GDP in a year by the population of that economy in the same year.

***Taxation and Economic development***

The importance of taxation to the economic development of Nigeria cannot be over emphasized, as the evidence presented in the work of Azaiki and Shagarri (2007), which states that Nigeria gained an extra ₦390 billion in oil-related fiscal revenue between 1971 and 2005 or 4.5 times in 2005 Gross Domestic Product (GDP). Unfortunately, the economy has been bedevilled by sustained under-development evidenced by poor human development and economic indices including poor income distribution, militancy and oil violence in the Niger Delta, endemic corruption, unemployment, relative poverty (Nwekeaku, 2010). Irrespective of Nigeria's huge oil wealth, the country has remained the poorest in the world. In particular, the Niger Delta which produces the oil wealth that account for the bulk of Nigeria's earnings has also as one of the most environmentally degraded regions in the world evidenced from the World Wildlife Fund report revealed in Ekaette (2009) cited in Jibrin *et al*. (2012). However, the problems with the Nigerian economy have been traced to failure of successive government to use the oil revenue and excess crude oil income effectively in the development of other sectors of the economy. Over all, there has been poor performance on national institutions such as power, energy, road, transportation, politics, financial systems, and investment environment have been deteriorating and inefficient (Nafziger, 2003). Tax revenue which includes petroleum profits tax and value added tax, major generators of Nigerian revenue are supposed to be a source of finance for economic development but have turned to be a bone of contention between many interest groups, precisely the government and the multinational oil and gas companies. Dominant theories of economic growth have suggested that significant relationship exists between national income and economic growth. This implies that, when income is invested in an economy, it results in the growth of that economy. For example, Harrod and Domar models stated that growth is directly related to saving (unspent-income). In support of this view, Azaiki and Shargari (2007), suggest that income from a nation's natural resources (e.g. petroleum) has a positive influence on economic growth and development. Poverty, famine, and disease afflict many nations, including Nigeria (Chironga, *et al*., 2011). It is quite clear from the opinions expressed in the foregoing theories that tax reform which is always aimed at increasing the revenue base of the country concerned can cause an increase in economic growth and development of a nation, depending on the type of theory, policy and practical implementation the government in power adopts.

***Theoretical framework***

*The Optimal Tax Reform Theory*

Under this theory, it is required that the best way to raise revenue is through taxing goods or factors with inelastic demand or supply, and that taxation relating to distribution and externalities or market failures should concentrate on identifying the source or origin of the problem. Thus, for distribution, one should look for the sources of inequality (for example, land endowments or earned in incomes) and taxation should be concentrated there (Oriakhi & Ahuru, 2014). Regarding externalities, an attempt should be made to tax or subsidize directly the good or activity that produces the externality (Stern, 1988). Newbery and Sterm (1987) applied a normative framework to analyse the tax reform process. The optimal taxation approach according to them emphasizes the need to analyse the impact of tax reform and evaluate both its administrative costs and its effects on social welfare. The major problem of this approach is that it required substantial data which are difficult to source in developing countries (Oriakhi & Ahuru, 2014). In addition, optimal taxation assumes the existence of perfect tax administration, which does not exist in Nigeria and several developing countries.

***Empirical Studies***

Ogbonna and Appah (2012) examined the impact of tax reforms on economic growth in Nigeria from 1994 to 2009. They used relevant descriptive statistics and econometric models such as white test, Ramsey reset test, Brueusch Godfrey test, Jacque Berra test, Augmented Dickey Fuller test, Johansen test and Granger Causality test. The result showed that tax reforms is positively and significantly related to economic growth and that tax reforms granger cause economic growth. Jibrin, Blessing and Ifurueze (2012), in their study of the impact of petroleum profits tax on economic development of Nigeria, used the ordinary least square method to analyze their data. Their research findings include the following: Petroleum profits tax impact positively on Gross Domestic Profit (GDP) of Nigeria and that it was statistically significant. Also that oil revenue impact positively on Gross Domestic Profit of Nigeria and that it was statistically significant. Worlu and Nkoro (2012) examined tax revenue and economic development of Nigeria, focusing on its impact on infrastructural development from 1980 to 2007. They employed the three stage least square estimation technique in the analysis of the data. The results show that tax revenue stimulates economic growth through infrastructural development. The study further revealed that tax revenue has no independent effect on growth through infrastructural development and foreign direct investment, but just allowing the infrastructural development and foreign direct investment to positively respond to increase in output. Also, in another study, Ogbonna and Appah (2012) used time series data from year 2000 to 2009 to investigate the causal link between petroleum income and Nigerian economic growth. They used simple regression model to analyse the data and found significant positive relationship between petroleum income and Gross Domestic Product (GDP) at 5% level of significance. Abdul – Rahamoh, Taiwo and Adejare (2013) examined the effect of petroleum profits tax on Nigerian economy for the period 1970-2010 and posited that petroleum profits tax has a significant effect on the economic growth of Nigeria with an adjusted $R^2$ of 86.3%. They utilized multiple regression and correlation to analyse the time series data collected. Aniechebe (2013), in a study on the impact of tax on economic growth in Nigeria between 1986 to 2011, applied econometric model finds out a significant relationship between composition and economic growth. Decomposing the impact into direct and indirect tax and total tax revenue component, finds a significant positive relationship between direct, indirect and economic growth and a negative relationship between total tax revenue and economic growth.

Umoru and Anyiwe (2013) examined the effect of tax structure on economic growth in Nigeria, employed a co-integration and error correction methods of empirical estimation with an empirical strategy of disaggregation. Their result indicates that while the policy of direct taxation is significantly and positively correlated with economic growth, indirect taxation proved to be insignificant with its negative impact on economic growth. Afuberoha and Okoye (2014) studied the impact of taxation on revenue generation in Nigeria. They made use of primary data and the data obtained were analysed with regression analysis computed with the aid of SPSS 17.0. Their findings show that taxation has a significant contribution to revenue generation and taxation has a significant contribution on Gross Domestic Product (GDP). Oriakhi and Ahuru (2014) studied the impacted to tax reform on federal revenue generation in Nigeria, tested for unit root using the Augmented Dickey Fuller and adopted the Johansen's co-integration test to determine the relationship between tax reform and federally collected revenue. Coefficient of the Error correction model was also adopted. The result showed that tax reform revenue generation by improving the tax system and reducing tax burden enhances the ability of the government to generate more revenue.

Another related study was undertaken by Jones, Ihendinihu and Nwaiwu (2015) who investigated total revenue and economic growth in Nigeria. They employed time series data ranging from 1986 to 2012 of total revenue and gross domestic product were collected from the Central Bank of Nigeria (CBN) and National Bureau of Statistics (NBS). The ordinary least square of multivariate regression method and the Error Correction method were used to analyse the data. The finding shows that total revenue has long and short equilibrium relationship with economic growth in Nigeria. Nwokoye and Rolle (2015) examined the investment implication of the series of tax reforms in Nigeria, particularly the tax reforms of 2003 and National tax policy of 2012. Annual time series data spanning the years (1981-2012) were utilized. Preliminary diagnostic test was conducted to examine whether the estimated model satisfies the ordinary least square (OLS) assumptions made. These were found to be satisfied. The result of the estimated OLS model shows that tax reforms, as represented by VAT and CIT, both positively and significantly stimulate investment in Nigeria.

**Methodology**

The research design adopted in this study was *ex-post facto*. The reasons for the choice of this design are the following: The study was a non-experimental in which the phenomena of interest have already occurred and cannot be manipulated. The study made use of data of events that have already taken place: that is time series data. The population of this study is one hundred and forty million, four hundred and thirty-one thousand, seven hundred and ninety (140,431,790) people (NPC, 2006). This figure was used because the study covers the entire economy; hence the researcher felt that the population of this study is the population of the entire country. Secondary data were used for the study. The data were collected from Central Bank of Nigeria (CBN) and Federal Inland Revenue Service (FIRS).

The statistical tool adopted in this study is the Chow test model. The choice for this statistical tool is based on the nature of the data of the study. The nature of the data in this study is such that has to do with break points. In this study, the break points are the pre-reform period data and post reform period data. Another reason for the choice of this statistical tool is because it is used to test break points or structural changes in a model. $The\, formula\, is$

$$F\,(K, N_1 + N_2 - 2K) = \frac{[SSEP - (SSE_1 + SSE_2)^{-}]/K}{SSE_1 + SSE_2/(N_1 + N_2 - 2K)}$$

Where:

$SSE_P$ = Sum of squared error term for pooled model

$SSE_1$ = Sum of squared error term for group 1

$SSE_2$ = Sum of squared error term for group 2

K = No of estimate parameters (including constant)

$N_1 + N_2$ = No of observations in the two groups

**Table 1: Major Tax Reforms showing Pre and Post Periods**

1. Petroleum profits tax was introduced in 1959, reformed in 1967 and was last reformed in 2004- see PPTA 2004.

| | |
|---|---|
| Pre PPT reform period 1994- 2003 | Post PPT reform period 2005- 2014 |

**Source:** FIRS – A Comprehensive Tax History of Nigeria (2013)

## Data Analysis and Results

### *Test of Hypotheses*

*Hypothesis 1*

**Table 2: Pooled Regression Result for Pre-PPT (1994-2003) and Post-PPT (2005-2014) reform periods on Gross Domestic Product (GDP) of Nigeria**

Dependent Variable: GDP
Method: Least Squares
Date: 12/02/15 Time: 12:10
Sample: 1994-2003 2005-2014
Included observations: 10

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 2245057829.558 | 561007781.542 | 4.0018 | 0.0052 |
| X | 0.0088 | 0.0029 | 3.0316 | 0.0191 |

| | | | |
|---|---|---|---|
| R-squared ($r^2$) | 0.5675 | Mean dependent var | 3384422555.9833 |
| Adjusted R-squared | 0.5057 | S.D. dependent var | 1776745834.9192 |
| S.E. of regression | 1249179569.390 | Akaike info criterion | 44.9225 |
| Sum squared resid | 1.0923 | Schwarz criterion | 44.9663 |
| Log likelihood | -200.1513 | Hannan-Quinn criter. | 44.8279 |
| F-statistic | 9.1842 | Durbin-Watson stat | 1.5302 |
| Prob (F-statistic) | 0.0191 | | |

**Source:** Research Data

Equation: GDP = 2091552386.1 + 0.0112059355215*PPT

*Decision rule: S= Significant when p<.05, else NS= Not Significant when p>.05.*

From the data on Table 2, r-squared ($r^2$)-value of 0.5675 shows a relatively high contribution of pre (1994-2003) and post (2005-2014) PPT reform periods to Gross Domestic Product (GDP) in Nigeria. From the regression equation (GDP = 2091552386.1 + 0.0112059355215*PPT), any increase in the pre and post PPT reform periods will yield a resultant increase in the value of Gross Domestic Product (GDP) in Nigeria. The $r^2$-value of 0.5675 indicates roughly the contribution of 56.8% to Gross Domestic Product (GDP) of the independent variable, pre and post PPT reform periods. Furthermore, the p-value of .0191 indicates that there is significant relationship between the PPT and Gross Domestic Product (GDP) in both the pre (1994-2003) and post (2005-2014) reform periods in Nigeria. The null hypothesis was therefore rejected. This means that the pre (1994-2003) and post (2005-2014) PPT reform periods contributed to the increase in Nigeria's Gross Domestic Product (GDP).

*Hypothesis 2*

**Table 3: Pooled Regression Result for Pre-PPT (1994-2003) and Post-PPT (2005-2014) reform periods on Infrastructural Development (ID) of Nigeria**

Dependent Variable: ID
Method: Least Squares
Date: 12/02/15 Time: 12:35
Sample: 1994-2003 2005-2014
Included observations: 10

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 221168326383.7981 | 58396682874.1913 | 3.7873 | 0.0068 |
| X | 0.4155 | 0.3008 | 1.3812 | 0.2099 |

| | | | |
|---|---|---|---|
| R-squared ($r^2$) | 0.2141 | Mean dependent var | 275222222222.6911 |
| Adjusted R-squared | 0.1019 | S.D. dependent var | 137209491087.1939 |
| S.E. of regression | 130030180626.2301 | Akaike info criterion | 54.2131 |
| Sum squared resid | 1.1836 | Schwarz criterion | 54.2569 |
| Log likelihood | -241.9588 | Hannan-Quinn criter. | 54.1185 |
| F-statistic | 1.9078 | Durbin-Watson stat | 1.7564 |
| Prob (F-statistic) | 0.2097 | | |

**Source:** Research Data

Equation: ID = 231508511224 + 0.250399899786*PPT

*Decision rule: S= Significant when p<.05, else NS= Not Significant when p>.05.*

From the data on Table 3, r-squared ($r^2$)-value of 0.2141 shows a very low contribution of pre (1994-2003) and post (2005-2014) PPT reform periods to Infrastructural Development (ID) in Nigeria. From the regression equation (ID = 231508511224 + 0.250399899786*PPT), any increase in the pre (1994-2003) and post (2005-2014) PPT reform periods will yield a resultant increase in the value of Infrastructural Development (ID) in Nigeria. The $r^2$-value of 0.2141 indicates roughly the contribution of 21.4% to Infrastructural Development (ID) of the independent variable, pre (1994-2003) and post (2005-2014) PPT reform periods. Furthermore, the p-value of .2097 indicates that there is no significant relationship between the PPT and Infrastructural Development (ID) in both the pre (1994-2003) and post (2005-2014) reform periods in Nigeria. The null hypothesis was therefore retained. This means that the pre (1994-2003) and post (2005-2014) PPT reform periods did not contribute to the increase in Nigeria's Infrastructural Development (ID).

**Discussion of Findings**

The study revealed on Table 2 that there was a significant relationship between petroleum profits tax and gross domestic products in both the pre-reform and post-reform periods under review (1994-2014), as P<0.05. The implication of this result is that tax reforms contribute positively to the economic growth and development of Nigeria. This finding agrees with Ogbonna and Appah (2012) who found that tax reforms is positively and significantly related to economic growth and that tax reforms granger cause economic growth. Also in line with this finding is Jibrin, Blessing & Ifurueze (2012) who found that petroleum profits tax impacted positively on gross domestic product of Nigeria and was statistically significant. Similarly, from Table 3, it was revealed that there is no significant relationship between petroleum profits tax (PPT) and infrastructural development (ID) in both the pre-reform (1994-2003) and post-reform (2005-2014) periods in Nigeria. This result is corroborates the finding of Arisoy and Unlukaplan (2010), who studied the effect of direct and indirect tax on economic growth of Turkey within the period of 1968-2006. Their study shows that the real output is positively related to indirect tax revenue while direct tax has no significant effect.

**Conclusion and Recommendations**

The importance of taxation and tax reforms to resources mobilisation (that is revenue generation), consumption, domestic investment, public infrastructural development and overall economic development course in emerging nations like ours is very imperative. Consequently, a lot of measures with regard to public finance reforms aimed at bridging the gap between national development needs and funding of the needs need to be put in place. This is essential especially at this period of global drop in the price oil which has remained our main source of revenue mobilization. One of such measures that need to be adopted to ensure rapid economic development is corrupt free and efficient tax system that should broaden the tax base of our nation. However, the study has established that tax reforms has impacted positively to Nigerian economy within the period under review in both the pre-reform and post-reform periods as indicated in chapter four of this study. The study therefore recommends that:

1. Tax reforms should be upheld and carried out every four years in order to increase the total revenue base of the nation especially at this time of global drop in the price of oil, since the study has established that it impacts positively on the economy of Nigeria.

2. Infrastructural development is one aspect of the economy the study has identified to have not been impacted positive by tax reform (tax revenue) in both the pre-reform and post-reform periods within the period under review. Consequently, government should increase its budget for capital expenditure and ensure its implementation in order to improve upon it to further increase gross domestic product of Nigeria.

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# Credit Flows, Credit Ratios: Analysis of Financial Intermediation and Economic Growth in Nigeria

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***Abstract***
*This study examines financial intermediation and the growth of Nigerian economy from 1990 – 2017. The objective is to investigate the extent to which financial intermediation affects the growth of Nigerian economy. The study made use of time series data sourced from Central Bank of Nigeria Statistical Bulletin. Nigerian Real Gross Domestic Product (RGDP) was used as dependent variable while percentage of commercial banks credit to Total Gross Domestic Product, percentage of commercial banks deposit to Total Gross Domestic Product, percentage of microfinance credit to Gross Domestic Product, Maximum lending Rate and Prime Lending Rate was used as independent variables. Multiple regressions with econometric view were used as data analysis method. Findings reveal that percentage of commercial banks credit to Gross Domestic Product and percentage of commercial banks deposit to Gross Domestic Product have positive and significant relationship with the growth of Nigerian economy while percentage of microfinance credit to gross Domestic Product, Prime Lending Rate and maximum lending rate have negative and insignificant relationship with Nigerian economic growth. From the regression summary the study concludes that there is significant relationship between financial intermediation and Nigerian economic growth. It recommends that the financial sector should further be reformed and its operational functions be integrated with the objectives of economic growth.*

**Keywords:** *Credit Flows, Economic Growth, Financial intermediation, Economic Growth*

**Introduction**

The opinion that finance has major role to play in the realization and achievement of the macroeconomic goals of full employment, growth in output, price stability and external balance can be traced to the classical monetary policy theories. It was later deepened by the 20th century economists such as Schumpeter in 1911, who argued that the creation of credit through the banking system was an essential source of entrepreneur capacity to drive real growth. Levine *et al*. (2000) opined that financial intermediaries emerge to lower costs of researching potential investments exerting corporation, controls, managing risks, mobilizing savings and conducting exchange. Economic growth is often measured in terms of the level of production within an economy. It is a critical function of availability of natural resources, rate of capital formation, capital output ratio, technological progress, dynamic entrepreneurship and other factors. Financial intermediate institutions (commercial banks) are empowered banking law to undertake the business of lending and borrowing in the economy. This constitutes the transmission mechanism for the government monetary and fiscal policies. It intermediates between the deficit and the surplus economic units to bridge the savings – investment gap among the economic units. Financial intermediation relates to the process whereby the financial institutions creating financial assets within the framework of the financial markets brings together the surplus and the deficit economic units in order to resolve their financial imbalance by means of a price related compensation mechanism called interest rate (*Ezirim et al.*, 2012). The process involves the inflow side characterized with fund mobilization and the outflow which is referred to fund utilization.

The relationship between financial intermediation and the growth of the economy has been categorized by scholars in terms of causality with respect to five possible hypotheses, no causal relation, demand following supply leading, negative causal link from finance to growth and independence (David *et al.*, 2012). A well-structured financial intermediation functions is believed by finance and economists to affect the overall performance of the economy in terms of aggregate output. For instance, efficient lending and investment operations by commercial banks would cause economic growth mobilization of excess funds and savings from surplus economic agents would pool resources and make them ready for gainful allocation in the economy (Ezirim *et al.*, 2012). It will also enhance investment by identifying and funding good business opportunities mobilizing savings, enabling trading and diversification of risk and facilitate the exchange of goods and services. These functions result in more efficient allocation resources, rapid accumulation of which is prerequisite for economic growth (Nwanyamou, 2011). The divergences on the relationship between finance and economic growth among scholars date back to the inability of the classical monetary policy to restore equilibrium and provide remedy to the great depression of the 1930s that gave birth to the Keynesians fiscal policy theories of government intervention.

Again, despite the various reforms in the Nigerian financial sectors aimed at repositioning the institutions to effectively perform the intermediate financial functions to facilitate the realization of macroeconomic goals; the extent to which these reforms affect the realization of economic growth remains a knowledge gap. For instance the deregulation of interest rate in 1986 was aimed at lowering cost of credit and to mobilize savings. The bank sector consolidation and recapitalization was programmed to reposition Nigerian banking sector to be an active player and not a spectator in the global financial market (Toby, 2006). A critical examination of financial intermediate indicators such as bank credit shows that Net Domestic Credit was 58.55% in 2009 but reduced to 10.00% in 2010, 57.16% in 2011 and -7.22% in 2012 while credit to core private sector within the same period was 36.7%, 29.9%, 28.5% and 36.1%. From the above, this study intends to examine and contribute to the existing knowledge on the relationship between financial intermediation and economic growth in Nigeria.

## Literature Review

### *Financial Intermediation*

The importance of financial institutions, especially banks, in generating growth within the economy has been widely discussed in literature (Nwaeze *et al.*, 2014). Several economists have argued that the role of intermediation which banks play help in providing linkages for different sectors of the economy as well as encouraging high level of specialization, expertise, economies of scale and creating a conducive environment for the implementation of various economic policies of government. For instance, Schumpeter (1912), as cited in Zakaria (2008), argued that financial intermediation through the banking system plays an essential role in economic development by affecting the allocation of savings, thereby improving productivity, technical change and the rate of economic growth. He acknowledged that efficient savings through identification and funding entrepreneurs is vital to achieving desired objectives. Thus, one of the activities of financial institutions involves intermediating between the surplus and deficit sectors of the economy. The availability of credit function positively allows the fruition of this role and is also important for growth of the economy (Nwaeze *et al*., 2014).

*The Supply Side of Financial Intermediation*

The supply side of the financial intermediation function represents the financing function of a typical financial institution. Financing function, according to finance theory, is the function of the firm geared toward the sourcing and/or raising of funds from alternative sources in such a cost-effective and time-efficient manner as to enable the firm to achieve its objectives. Thus, four elements are cardinal in the financing function of firms: the alternative sources, the cost implications, time-efficiency, and objective criterion of the firm, e.g. maximization of owners' wealth. Efficiency in the conduct of financing function is attained when the business unit mobilizes funds from convenient sources that guarantee the attainment of cost effectiveness and time efficiency (Ezirim, 1996). For our purpose in this study, financing function would represent the funds mobilization function of the financial institutions. This function is known as the supply side of the institution's intermediation function. The culmination of the funds' mobilization effort of a typical depository institution is the total portfolio of the various types of deposits (alternative sources of funds) generated by the financial intermediary (Ezirim, 1999; 2003). Funds are mobilized by the help of institutional and non-institutional arrangements, instruments and facilities provide by the financial markets.

*The Deposit Output Model: Alternative Consideration*

A previous consideration in defining the dependent variable of the supply side models earlier developed in this paper relates total deposits to the Total National Savings (TNS) of the country, and somewhat has the aggregate output (Q) or related terms as included arguments. It was basically an attempt at determining the commercial banks' share of aggregate national savings. The essence of the intermediation activities of financial institutions, savings mobilization inclusive, is positively and significantly impacting macro-economic magnitudes, such as aggregate output, for the ultimate growth and development of the economy. This much has been argued in Ojo (1984), Odedokun (1987), Ezirim and Emenyonu (1997), and Ezirim (1999; 2003). Thus, commercial banks' intermediation activities must be related to aggregate output or other economic indicators as the case may be. In our present consideration, the results of operations at the supply side or inflow side of the intermediation function (i.e. total deposits) would be related to total output. This relationship expressing the ratio of total deposits to total output of the country (TD/GDP) indicates the extent to which commercial banks assist in financing aggregate output, and hence growth of the economy. The deposit-output ratio (DQR) is posited to be a true representative of the supply side intermediation performance as it affects the economy.

A critical question that has to be addressed, inter alia, would relate to the effect of the forces at play in the financial environment or general economy on the DQR. This suggests that the determinants of the funds mobilization behaviour of a typical financial institution can be viewed from the environmental angle. We can identify such financial market environments as: the money and capital markets environments, where the deposit rates, lending rates, and treasury bills rates *rule the roost*. We can also identify the foreign exchange market environment with the foreign exchange rates as the critical variable. A notable environment that affects the financial markets operations in Nigeria is the socio-political environment. It has been shown by previous studies that this environment considerably affects the demand or outflow side of the intermediation function of the financial superstructure (Cookey, 1997a; 1997b; Ezirim, 1999; Ezirim, Muoghalu & Emenyonu, 2002). This cannot be posited for the supply or inflow side with same degree of confidence since, to the best of the authors' knowledge, not many studies have addressed the issue adequately. Making appeals to both theoretical underpinnings and previous empirical studies such as the works of Ndekwu (1991), Uchendu (1993), Ikhide (1993), Ajakaiye and Odusola (1995), and Ezirim (1999), we can underscore five prominent factors as the major predictors of the funds mobilization behaviour of commercial banks. They include the deposit rate of interest (DRI), lending rate of interest (LRI), the treasury bills rate (TBR), foreign exchange rates (FER), and the socio-political trend index (STI). Functionally, we can represent the ensuing relationship as:

$$DQR_t = f(DRI_t, TBR_t, FER_t, STI_t, LRI_t, ) \ldots\ldots\ldots (1)$$

Where variables are as earlier defined, a careful look at (1) above indicates that the LHS (left-hand side) represents the banking habit of the country. This is so, following the definition in Ezirim and Muoghalu (2001) that the ratio of total deposits to total output of country measures of the country's banking habit. Invariably, the RHS (right hand side) is seen as the determinants of the banking habit. A basic question that needs be addressed relates to the direction and nature of relationship between the DQR and the identified explanatory variables. This requires the determination of the sign implication of their relationships. Taking the predictors in turn, it is postulated that a positive relationship must exist between DQR and DRI. This is not difficult to see, since increases in deposit rates spur depositors and treasury customers of commercial banks to increase their deposits in order to reap higher income. Given that output does not immediately increase at a proportion higher than the total deposits, the DQR will continue to increase. However, the essential point here is that higher deposit rates attract more deposits to the banks, and *vice versa*. What happens in the money market equally affects the funds mobilization efforts of commercial banks. These banks are major institutional investors in the money market. They dominate the treasury bills market, which is, perhaps, the most important segment of the Nigerian money market, from the investment point of view. Parts of the sourced funds by banks are channelled to treasury investments. When the treasury bills rate increases, it is natural for these banks to increase their holding of the money market instrument, ceteris paribus. This behaviour is reversed in case of lower rates. Thus we can identify a positive relationship between TBR and DQR.

Commercial banks are key players in the Nigerian foreign exchange market. In fact, apart from being intermediaries, they have been accused of being more of traders than intermediaries, in their craze for maximum possible profits (Ezirim, 1999; Ezirim, Muoghalu & Emenyonu, 2002). These two positions equally create a tendency where higher rates of foreign exchange, which implies higher profits, would cause the banks to be more aggressive in funds sourcing. The tendency is for deposits relative to output to increase as the foreign exchange rates increase. The relationship is also positive. The same type of relationship can equally be defined for the socio-political trend index. It has been argued that when stability, congeniality, and peace prevail in a country, intermediation activities would be boosted. The converse is true as well. Thus, a positive relationship should exist between DQR and STI. On the other hand, the relationship between LRI and DQR can be positive or negative depending on the circumstances. In the first instance, the prospects of receiving higher income by virtue of possible higher lending rates would cause bankers to increase their deposit mobilization activity and if possible step up deposit rates in order to source more funds. This would mean a positive relationship between LRI and DQR. However, higher lending rates can equally discourage prime customers from bringing more of their savings as deposits to the banks, since when they come for loans, they are given high rates. Either they go to other banks that promise lower lending rates or channel their funds into investments other than deposits. If this argument is taken, then the relationship between the DQR and LRI can be either positive or negative. Having defined these *a priori* sign expectations, we can explicitly rewrite equation (2) linearly as:

$$DQR_t = \omega o + \omega_1 DRI_t + \omega_2 TBR_t + \omega_3 FER_t + \omega_4 STI + \omega_5 LRI_t + U_t \text{ .... } (2)$$

$\omega_1, \omega_2, \omega_3, \omega_4 > 0$; $\omega_5 >/< 0$; and $\omega_{is}$ are parameters.

Assuming, it is contended that both the deposit rates (DRI) and lending rates (LRI) are money market variables, and thus undermining the inclusion of the TBR rate, the above expression will reduce to:

$$DQR_t = \phi_0 + \phi_1 RDI_t + \phi_2 FER_t + \phi_3 STI + \phi_4 LRI_t + E_t \text{ ............} (3)$$

Where: $\phi_1, \phi_2, \phi_3 > 0$; $\phi_4 >/< 0$ are parameters.

This argument is not as plausible as that in expression (3) since these activities namely; deposits mobilization, lending, and investment in money market instruments are independent activities that are carried out by commercial banks.

***Financial Development drives Growth in the Economy***

The direction of causality has been described by Patrick (1966), as supply-leading and demand-following hypothesis. This postulation was buttressed by Mckinnon (1973). When causal relationship runs from financial development to growth, it is termed supply-lading because it is believed that the activities of the financial institutions increase the supply of financial services which creates economic growth. The proponents of this hypothesis believe that the activities of financial institutions serve as a useful tool for increasing the productive capacity of the economy. They opine that countries with better developed financial system tend to grow faster. According to Mackinnon (1973), a farmer could provide his own savings to increase slightly the commercial fertilizer that he is now using and the return on the marginal new investment could be calculated. However, there is a virtual impossibility of a poor farmer's financing from his current savings, the total amount needed for investment in order to adopt the new technology. As such access to finance is likely to be necessary over the one or two years when the change takes place, he concluded.

***Growth in the Economy motivates Financial Development***

Similarly, when growth within the economy results in increase in the demand for financial services and this subsequently motivates financial development; then it is termed demand-following hypothesis. The proponents of this hypothesis believe that economic growth is a causal factor for financial development. According to them, as the real sector grows, the increasing demand for financial services stimulates the financial sector (Gurley & Shaw, 1967). Robinson (1952) was of the opinion that economic activities propel banks to finance enterprises. Thus, where enterprises lead, finance follows. The study by Mushin and Eric (2000) on Turkey further lends credence to this postulation. According to their study, when banks deposits; private sector credit or domestic credit ratios are alternatively used as proxy for financial development; causality runs from economic growth to financial development. They therefore concluded that growth seems to lead financial sector development.

***Bi-Directional Relationship between Financial Development and Economic Growth***

There are other scholars who believe that causality runs in both directions. The proponents of this view postulate that there is a bi-directional relationship between financial development and economic growth. Demetriades and Andrianova (2004) postulate that whether financial development causes growth, it is important that the financial system is well functioning. If so, they believe it will assist the real economy to fully exploit available new opportunities. When there is reverse causation, it is assumed that when the real economy grows, there will be more savings coming into the financial system which will allow it to extend new loans. This assertion could readily be applied to the Shan and Jianhong (2006) study of China economy where they found a two-way causality between finance and growth. Using five variables namely GDP, total credit to the economy, labour, investment and trade, the study observed that financial development was the second most important sector after the contribution from labour force growth in affecting economic growth. They also found out that strong economic growth in the last 20 years has significant impact on financial development by providing a solid credit base. The study concluded that causality for GDP growth to financial development is stronger than the causality from finance to GDP growth. Concluding, although evidence from empirical work support the fact that both finance and real output are positively related to each other, the relationship is country-specific, so one should not extrapolate one country's with another.

***Theories of Financial Intermediation***

*The Perfect Theory of Financial Intermediary*

Three pillars are at the basis of the modern theory of finance: optimality, arbitrage, and equilibrium. Optimality refers to the notion that rational investors aim at optimal returns. Arbitrage implies that the same asset has the same price in each single period in the absence of restrictions. Equilibrium means that markets are cleared by price adjustment through arbitrage at each moment in time (Levine *et al.,* 2000). In the neoclassical model of a perfect market, e.g. the perfect market for capital, or the Arrow-Debreu world, the following criteria usually must be met:

i. No individual party on the market can influence prices;
ii. Conditions for borrowing/lending are equal for all parties under equal circumstances;
iii. There are no discriminatory taxes;
iv. Absence of scale and scope economies;
v. All financial titles are homogeneous, divisible and tradable;
vi. There are no information costs, no transaction costs and no insolvency costs;
vii. All market parties have *ex ante* and *ex post* immediate and full information on all factors and events relevant for the (future) value of the traded financial instruments.

The Arrow-Debreu world is based on the paradigm of complete markets. In the case of complete markets, present value prices of investment projects are well defined. Savers and investors find each other because they have perfect information on each other's preferences at no cost in order to exchange savings against readily available financial instruments. These instruments are constructed and traded costless and they fully and simultaneously meet the needs of both savers and investors. Thus, each possible future state of the world is fully covered by a so-called Arrow-Debreu security (state contingent claim). Also important is that the supply of capital instruments is sufficiently diversified as to provide the possibility of full risk diversification and, thanks to complete information, market parties have homogenous expectations and act rationally. In so far as this does not occur naturally, intermediaries are useful to bring savers and investors together and to create instruments that meet their needs. They do so with reimbursement of costs, but costs are by Definition an element – or, rather, characteristic – of market imperfection.

Therefore, intermediaries are at best tolerated and would be eliminated in a move towards market perfection, with all intermediaries becoming redundant: the perfect state of disintermediation. This model is the starting point in the present theory of financial intermediation. All deviations from this model which exist in the real world and which cause intermediation by the specialized financial intermediaries are seen as market imperfections. This wording suggests that intermediation is something which exploits a situation which is not perfect, therefore is undesirable and should or will be temporary.

*Modern Theories of Financial Intermediation*

In order to give firm ground to our argument and to illustrate the paradox, we will first review the doctrines of the theory of financial intermediation. These are specifications, relevant to the financial services industry, of the agency theory, and the theory of imperfect or asymmetric information. Basically, we may distinguish between three lines of reasoning that aim at explaining the *raison d'être* of financial intermediaries: information problems, transaction costs and regulatory factors.

First, and that used in most studies on financial intermediation, is the informational asymmetries argument. These asymmetries can be of an ex ante nature, generating adverse selection, they can be interim, generating moral hazard, and they can be of an *ex post* nature, resulting in auditing or costly state verification and enforcement.

***An Alternative Approach of Financial Intermediation***

When information asymmetries are not the driving force behind intermediation activity and their elimination is not the commercial motive for financial intermediaries, the question arises which paradigm, as an alternative, could better express the essence of the intermediation process. In our opinion, the concept of value creation in the context of the value chain might serve that purpose. And, in our opinion, it is risk and risk management that drives this value creation. The concept of value creation, introduced by Michael Porter (1985), can be seen as a dynamic extension of the theory of industrial organization, in the tradition of Joseph Schumpeter. It represents the other side of the coin, which glitters in the theory of the firm: transaction costs are incurred to create value. It is amazing that the value added approach, now widely recognized and applied in the literature on business organization, management and finance describes the value creation process in banking in his book *Competitive Strategies in European Banking*, making reference to Porter. However, he does not elaborate on this concept to create an alternative to the existing paradigm of financial intermediation; nor does he go into depth to explain the basic process of value creation by financial intermediaries. David Llewellyn's concept of contract banking is also based on the value chain idea (Llewellyn, 1999). But here too, there emerges no alternative for the mainstream view on financial intermediation.

***Empirical Studies***

Levine, Loayza and Beck (2000) changed the face of the argument on the relationship between financial intermediation and economic growth. This study sought to establish the impact of the endogenous component of financial intermediation on economic growth. A robust methodology, which comprises two models and two estimation techniques, was employed. The first model, which defines economic growth as function of finance indicators and a vector of economic growth determinants, was estimated using the pure cross-sectional estimation technique. The second model is a dynamic panel model and is estimated using the Generalized Method of Moments (GMM). Both tests confirm the strong positive impact of the endogenous components of financial intermediation on economic growth. They, however, noted that countries with high priority for creditors' protection, strong will to enforce contracts, and unambiguous accounting standards have the potential for a developed financial intermediation.

McCaig and Stengos (2005) introduced more instrumental variables with a view to establishing a more robust empirical relationship between financial intermediation and economic growth. The study uses a cross-country analysis of 71 countries for the period 1960 to 1995. A linear regression model, which defines economic growth as a function of financial intermediation and a set of conditioning variables, was estimated using the Generalized Method of Moments (GMM). While the instrumental variable introduced included; religious composition, years of independence, latitude, settler mortality, and ethnic fractionalization, three conditioning variable were also used. These include; simple sets (initial GDP, and level of education), the policy set (simple set, government size, inflation, black market premium, and ethnic diversity), and the full set (simple set, policy set, number of revolution/ coup, number of assassination per 1000 inhabitants, and trade openness). This study also supports the argument that a positive relationship exist between financial intermediation and economic growth. However, it emphasized that this will be true if financial intermediation is measured by liquid liabilities and private credit as a ratio of GDP, while it will be weaker if it is measured using the Commercial-Central Bank ratio. Hao (2006) sought to establish the relationship between financial intermediation and economic growth, using a country-specific data from China. The study focused on the post-1978 reform period, using provincial data (28 Provinces) over the period 1985 to 1999. The study employed the use of linear model, which expresses economic growth as a function lagged economic growth, financial development indicators (banks, savings, and loan-budget ratio), as well as a set of traditional growth determinants (population growth, education, and infrastructural development). The study used the one-step parameter estimates for the Generalized Method of Moments (GMM) estimation and finds that financial intermediation has a causal effect and positive impact on growth through the channels of house-holds' savings mobilization and the substitution of loans for state budget appropriations. However, the study revealed that bank, as an indicator of financial development, is significant but negatively related to growth. This was attributed to the inefficiency in loan distribution and the self-financing ability of the provincial governments.

Romeo-Avila (2007) also confirmed the positive impact of finance on growth. He investigates the relationship between finance and growth, with emphasis on the effect of financial deregulation and banking law harmonization on economic growth in the European Union. The study established that financial intermediation impacts positively on economic growth through three channels. Deidda (2006) was quite informative and unique. It is a micro-based study, using the inter-temporal approach to explain the theoretical rationale of the impact of financial intermediation on economic growth. It assumes a transition from period 1 (financial autarky) to the period 2, which is the period when financial intermediation is attained. Although this study is theoretical in nature, the General Equilibrium Analysis was used and it concludes that the growth effect of costly financial development is ambiguous when regime switch is associated with the adoption of more capital intensive technology. There is no empirical work to this effect yet. The work of Odhiambo (2008) proves very useful in this regard. The study prepared a simple table, which summarizes previous empirical studies on the causal relationship between finance and economic growth. Several studies, however, have been conducted since then to further enhance the understanding of the causal relationship between finance and economic growth. While Liang and Teng (2006), Odhiambo (2008), Coccorese (2008), and Odhiambo (2011) emphasize that economic growth granger cause financial development. Others, which include Abu-Bader and Abu-Qarn (2008), Wolde-Rufael (2009), Kar, Nazlioglu and Agir (2011), and Bangake and Eggoh (2011) argue otherwise. Odhiambo (2008) sought to examine the dynamic causal relationship between financial depth and economic growth in Kenya. The study focused on the period, 1969 to 2005, and included savings as an intermitting variable. To achieve this task, this study adopted two econometric techniques; the dynamic tri-variate granger causality test and the error correction model (ECM Modelling). This study concludes that one-way direction causality, from economic growth to finance, exists in Kenya. In other words, finance plays a minor role in the attainment of economic growth in Kenya.

Wolde-Rufael (2009) is of a contrary opinion. Using a different econometric technique, the Quad-variate Vector Autoregressive (VAR) framework and data from 1966 to 2005, the study concludes that two-way directional causality exists in Kenya. Abu-Bader and Abu-Qarn (2008) sought to examine the causal relationship between financial development and economic growth. The study focused on Egypt over the period, 1960 to 2001. Using the trivariate VAR model, this study concludes that two-way directional causality exists in Egypt. In other words, finance leads growth, and economic growth induces financial development. Odhiambo (2011) argued that economic growth granger causes financial development in South Africa. This study sought to examine the dynamic causal relationship between financial development, economic growth, and poverty reduction. Using a trivariate causality model and the ECM modelling to analyze the data collected from 1960 to 2006, it concludes that the hypothesis of finance-led growth does not hold in South Africa. Gries, Kraft and Meierrieks (2009) sought to test for the causality between financial deepening, trade openness, and economic development. This study focused on 16 Sub-Saharan African countries, using annual time series observations. For the purpose of establishing the causal relationships, the Hsiao-Granger method, the Vector Auto-Regression (VAR), and the Vector Error Correction Model (VECM) were used. This study shows sparse support for the hypothesis of finance-led growth. It, however, suggests that the adoption of a more balanced policy approach may reduce financial system deficiencies among the Sub-Saharan Countries.

Kar, Nazliogu and Agir (2011) focused on developing countries and also introduced new indicators of financial development with a view to establishing the causal relationship between financial development and economic growth. Using countries, which constitute the Middle East and North Africa (MENA) for the period 1980 to 2007, the study used a simple linear model. This model defines economic growth as a function of financial development. Six new indicators of financial development were introduced and these include; the ratio of narrow money to income, ratio of broad money to income, ratio of quasi money to income, ratio of deposit money bank liabilities to income, ratio of domestic credit to income, and ratio of private sector credit to income. On the other hand, the real income was employed as a proxy for economic growth. The Granger Causality test was employed to establish the causal relationship between financial development and economic growth. The study concludes that the direction of causality is bi-directional, but it is country or financial development indicator - specific. This study, however, suggests that a strong link may exist between financial development and the real sector. Bangake and Eggoh (2011) also support the view of an existing two-way directional causality between financial development and economic growth among developing countries. This study focused on seventy-one countries, which included eighteen developing countries, for the period 1960 to 2004. The study carried out its empirical analysis using both the Panel Cointegration tests and the Panel cointegration estimation. It established that both financial development and economic growth have influence on one another, but suggests that a long-run policy approach may prove beneficial among the developing countries. Hassan, Sanchez and Yu (2011) focused more on the low- and middle-income countries from 1980 to 2007. This comprised 168 countries, which were classified by geographic regions, and used the panel estimation techniques. It concluded that a strong long-run linkage between financial development and economic growth, and two-directional causality exist between financial development and economic growth among the Sub-Saharan African countries, the East Asian countries, and the Pacific countries.

**Methodology**

This section contains the methodology employed in analysing the data. It provides the, empirical strategy and estimation techniques, analytical framework, model specification, as well as the description and sources of the data. This study uses *quasi* experimental research design approach for the data analysis. This approach combines theoretical consideration (*a priori* criterion) with the empirical observation and extract maximum information from the available data. It enables us therefore to observe the effects of explanatory variables on the dependent variables. The data for this study are secondary data sourced from the Central Bank of Nigeria Statistical Bulletin, Stock Exchange Factbook, Economic and Financial Review and Financial Statement of quoted commercial banks.

***Model Specification***

From theories, principles and empirical findings, the model below is specified in this study.

RGDP = f (CBC/GDP, CBD/GDP, MFTC, MLR, PLR)…….4

It is empirically stated as:

$$RGDP = \beta_0 + \beta_1 CBC/GDP + \beta_2 CBD/GDP + \beta_3 MFTC/GDP + \beta_4 MLR + \beta_6 PLR + \mu \quad \ldots\ldots 5$$

Where:

RGDP = REAL Gross Domestic Product.

CBC/GDP = Percent of Commercial Banks Credit to Gross Domestic Product

CBD/GDP = Percent of Commercial Banks Deposit to Gross Domestic Product

| | | |
|---|---|---|
| MFTC/GDP | = | Percent of MICROFINANCE Banks to GDP |
| CBLR | = | Commercial Banks MAXIMUM Lending Rate. |
| CBSR | = | Commercial Banks PRIME LENDING Rate |
| $\beta_0$ | = | Regression Intercept |
| $\beta_1$ - $\beta_6$ | = | Coefficient of the independent variables to the Dependent variable |
| μ | = | Error term |

***Estimation Procedure***

*Unit Root Test*

Most of time series have unit root as demonstrated by many studies including Nelson and Plosser (1982), Stock and Watson (1988) and Campbell and Peron (1991). Therefore, their means of variance of such time series are not independent of time. Conventional regression technique based on non-stationary time series produce spurious regression and statistic may simply indicate only correlated trends rather true relationship (Granger & Newbold, 1974). Spurious regression can be detected in regression model by low Durbin Watson and relatively moderate $R^2$.

Therefore, to distinguish between correlation that arises from share trend and one associated with an underlying causal relationship; we use both the Augmented Dickey fuller (Dickey and Fuller, 1979; 1981).

$$X_t = \mu + \Theta X_{t-1} + \varepsilon_t \qquad \text{......6}$$

The null hypotheses for the ADFstatistic test are $H_0$.

Non stationary (unit root) and $H_0$: Stationary respectively

*Cointegration*

To search for possible long run relationship amongst the variables, we employ the Johansen and Juselius (1990) approach. Thus, the study constructed a p-dimensional (4x1) vector auto regression model with Gaussian errors that can be expressed by its first differenced error correction form as:

$$\Delta Y_t = \Gamma_1 \Delta Y_{t-1} + \Gamma_2 \Delta Y_{t-2} + \ldots + \Gamma_{k-1} \Delta Y_{t-k+1} - \Pi Y_{t-1} + \mu + \varepsilon_t \qquad \ldots\ldots 7$$

Where $Y_t$ are the data series studied, $\varepsilon_t$ is i. i. d, N(0,∑) $\Gamma_i$ + -1 + $A_1$ + $A_1$ + $A_2$ + $A_3$ + ……. + $A_i$

For i = 1,2,3……..,k-1, Π = I – $A_1$ – $A_2$ - ……-$A_k$. The Π matrix conveys information about the long term relationship among the $Y_t$ variables studied. Hence, testing the cointegration entails testing for the rank r of matrix Π by examine whether the eigenvalues of Π are significantly different from zero. Johansen and Juselius (1990) proposed two tests statistics to determine the number of cointegrating vectors (or the rank of Π), namely the trace and the maximum eigen-value (l-trace) is computed as:

$$\lambda trace = -T \sum_{j=r+1}^{n} In(1-\lambda_j) \qquad \ldots\ldots 8$$

The trace tests the null hypothesis that "at most" r cointegration vector, with "more than" r vectors being the alternative hypothesis. The maximum eigenvalue test is given as:

$$\lambda_{max} = -TIn(1-\lambda_{r+1}) \qquad \ldots\ldots 9$$

It tests the null hypothesis of r cointegrating vectors against the alternative hypothesis of r + 1 cointegration vectors. In the equation (6) and (7), is the sample size and l is the largest canonical correlation.

*Granger Causality*

In case we do not find any evidence for cointegration among the variables, the specification of the Granger causality will be a vector autoregression (VAR) in the first difference form. However, if will find evidence of cointegration, there is the need to augment the Granger-type causality test model with a one period lagged error term. This is a crucial step because as noted by Engel and Granger (1987).

$$Y_t = \alpha_o + \sum_{i-1}^{n} \alpha_1^{y} Y_{t-1} \sum_{i-1}^{n} X_{\alpha 1} X \mu \quad \text{.........................................10}$$

and

$$X_t = \beta_o + \sum_{i-1}^{n} {}_{\beta}{}_1^{y} Y_{t-1} \sum_{i-1}^{n} X_{\beta 1} XY_t \quad \text{....................................11}$$

*Error Correction Model (ECM)*

Co-integration is a prerequisite for the error correction mechanism. Since co-integration has been established, it is pertinent to proceed to the error correction model.

*A-Priori Expectation*

Base on theory and empirical findings, the independent variables are expected to have a positive effect on the dependent variables, therefore the mathematical expression is written as $B_1$, $B_2$, $B_3$, $B_4$, $B_5$, > 0.

**Data Analysis and Results**

***Presentation of Results***

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| CBC_GDP | 0.027906 | 0.246936 | 0.113007 | 0.9116 |
| CDC_GDP | 0.201480 | 0.305903 | 0.658640 | 0.5208 |
| MFC_GDP | -0.05836 | 0.502613 | -0.116113 | 0.9092 |

| | | | | |
|---|---|---|---|---|
| | 0 | | | |
| PLR | -0.139181 | 0.211876 | -0.656898 | 0.5219 |
| MLR | -0.135061 | 0.132075 | -1.022610 | 0.3238 |
| C | 8.410862 | 4.429145 | 1.898981 | 0.0784 |
| | | | | |
| R-squared | 0.484629 | Mean dependent var | | 4.991500 |
| Adjusted R-squared | 0.300568 | S.D. dependent var | | 2.442782 |
| S.E. of regression | 2.042949 | Akaike info criterion | | 4.509991 |
| Sum squared resid | 58.43097 | Schwarz criterion | | 4.808711 |
| Log likelihood | -39.09991 | Hannan-Quinn criter. | | 4.568304 |
| F-statistic | 2.632976 | Durbin-Watson stat | | 1.053925 |
| Prob(F-statistic) | 0.070228 | | | |

Evidence from the regression result above indicate that 48.4% and 30.0% variance in Nigerian Gross Domestic Product can be explained by variation in the independent variables in the regression model formulated in chapter three of this study. The F-statistics which measure the significant of the overall model show 2.632976 and probability of 0.070228; this implies that the model is statistically not significant at 5% level of significance. The Durbin Watson statistics of 1.053925 is less than 2.00 but greater than 1.00; this implies the negative presence of serial autocorrelation between the variables in the time series. The regression co-efficient prove that commercial banks credit to Gross Domestic Product, commercial banks deposit mobilization to Gross Domestic Product have positive but insignificant effect on Gross Domestic Product while microfinance credit to Gross Domestic Product, prime lending rate and maximum lending rate have negative relationship with Nigerian Real

Gross Domestic Product. The T-statistics and the probability value show that all the independent variables are statistically not significant.

***Stationarity Test***

| VARIABLES | ADF STATISTICS | MACKINON CRITICAL VALUE 1% | 5% | 10% | ORDER OF INTEGRATION |
|---|---|---|---|---|---|
| RGDP | -8.184429 | -3.670170 | -2.963972 | -2.615817 | **1(1)** |
| CBC_GDP | -4.262126 | -3.670170 | -2.963972 | -2.615817 | **1(1)** |
| CDC_GDP | -4.260990 | -3.670170 | -2.963972 | -2.615817 | **1(1)** |
| MFC_GDP | -4.279064 | -3.670170 | -2.963972 | -2.615817 | **1(1)** |
| PLR | -3.283769 | -3.670170 | -2.963972 | -2.615817 | **1(1)** |
| MLR | **-5.766365** | **-3.670170** | **-2.963972** | **-2.615817** | **1(1)** |

The stationarity test shows that all the variables are integrated of 1(1), this means that the variables are stationary at level leading to the rejection of null hypotheses.

| Null Hypothesis: | Obs | F-Statistic | Prob. |
|---|---|---|---|
| CDC_GDP does not Granger Cause CBC_GDP | 22 | 0.29893 | 0.7440 |
| CBC_GDP does not Granger Cause CDC_GDP | | 2.29223 | 0.1204 |
| | | | |
| MFC_GDP does not Granger Cause CBC_GDP | 19 | 10.1508 | 0.0019 |
| CBC_GDP does not Granger Cause MFC_GDP | | 0.65398 | 0.5351 |
| | | | |
| MLR does not Granger Cause CBC_GDP | 21 | 0.19479 | 0.8242 |
| CBC_GDP does not Granger Cause MLR | | 0.10524 | 0.9005 |
| | | | |
| PLR does not Granger Cause CBC_GDP | 21 | 0.79580 | 0.4619 |
| CBC_GDP does not Granger Cause PLR | | 0.25359 | 0.7779 |
| | | | |
| RGDP does not Granger Cause CBC_GDP | 22 | 0.97523 | 0.3900 |
| CBC_GDP does not Granger Cause RGDP | | 2.57592 | 0.0947 |

| | | | |
|---|---|---|---|
| MFC_GDP does not Granger Cause CDC_GDP | 19 | 19.1114 | 0.0001 |
| CDC_GDP does not Granger Cause MFC_GDP | | 1.00966 | 0.3894 |

The granger causality presented above shows no causal relationship running through the variables, this means the null hypotheses is accepted that the variables do not granger cause Nigerian Real Gross Domestic Product.

### Co-Integration Test

Unrestricted Cointegration Rank Test (Trace)

| Hypothesized No. of CE(s) | Eigenvalue | Trace Statistic | 0.05 Critical Value | Prob.** |
|---|---|---|---|---|
| None * | 0.808392 | 88.65675 | 69.81889 | 0.0008 |
| At most 1 | 0.485687 | 39.08764 | 47.85613 | 0.2568 |
| At most 2 | 0.348455 | 19.13997 | 29.79707 | 0.4829 |
| At most 3 | 0.180850 | 6.287693 | 15.49471 | 0.6615 |
| At most 4 | 0.010050 | 0.303038 | 3.841466 | 0.5820 |

| Hypothesized No. of CE(s) | Eigenvalue | Max-Eigen Statistic | 0.05 Critical Value | Prob.** |
|---|---|---|---|---|
| None * | 0.808392 | 49.56911 | 33.87687 | 0.0003 |
| At most 1 | 0.485687 | 19.94767 | 27.58434 | 0.3448 |
| At most 2 | 0.348455 | 12.85228 | 21.13162 | 0.4659 |
| At most 3 | 0.180850 | 5.984655 | 14.26460 | 0.6152 |
| At most 4 | 0.010050 | 0.303038 | 3.841466 | 0.5820 |

The co-integration results show no cointegrating equations among the variables; this means the null hypotheses of cointegrating equation is rejected.

**Discussion of Findings**

The objective of the study is to examine the relationship between financial sector intermediation and the growth of Nigerian economy. Findings of the study reveal that commercial banks credit and commercial banks deposit have positive and significant relationship with Nigerian economic growth. This finding confirms the *a-priori* expectation of the result. It also confirms the objective of Nigerian financial sector reform, such as the banking sector consolidation and recapitalization, which according to Toby (2006), was to reposition the banking sector to be an active player in the global financial market and not a spectator. The financial sector deregulation in 1986 was to deepen the operational efficiency of the financial market for effective intermediation. It is in line with theories of financial intermediation and confirms the empirical findings of Romeo-Avila (2007) whose study established that financial intermediation impacts positively on economic growth through three channels. Deidda (2006) concludes that the growth effect of costly financial development is ambiguous when regime switch is associated with the adoption of more capital intensive technology. Odhiambo (2008) also concludes that one-way direction causality, from economic growth to finance, exists in Kenya. In other words, finance plays a minor role in the attainment of economic growth in Kenya. Abu-Bader and Abu-Qarn (2008) similarly concludes that two-way directional causality exists in Egypt. In other words, finance leads growth, and economic growth induces financial development. Bangake and Eggoh (2011) established that both financial development and economic growth have influence on one another, but suggests that a long-run policy approach may prove beneficial among the developing countries. However, the result found that microfinance credit, prime lending rate and maximum lending rate have negative and insignificant relationship with the growth of Nigerian economy, this finding ios contrary to the expectation of the result and the theory of monetary policy. It is also contrary to the financial intermediation theory. The negative relationship might be as a result of shocks in the monetary policy environment.

**Conclusion and Recommendations**

From the findings, the following conclusions were drawn:

1. Commercial banks credit has positive and significant relationship with the growth of Nigerian economy. This finding confirms the *a-priori* expectation of the result.

2. Commercial banks deposit credit has positive and significant relationship with the growth of Nigerian economy. This finding confirms the *a-priori* expectation of the result.

3. Microfinance credit has negative and insignificant relationship with the growth of Nigerian economy. This finding confirms the *a-priori* expectation of the result.

4. Maximum lending rate has negative and insignificant relationship with the growth of Nigerian economy. This finding confirms the *a-priori* expectation of the result.

5. Prime lending rate has negative and insignificant relationship with the growth of Nigerian economy. This

finding confirms the *a-priori* expectation of the result.

In view of the above conclusions, the study reommends:

1. Expansionary monetary policy to enable commercial banks expand their lending to the sector of the economy. Commercial bank lending is a major function of its environment. Therefore, the study calls for the overhaul of some bank lending rules.

2. Better business environment to redress the sectors of the economy that are very unattractive to banks; noting that economic performance and bank lending will in turn enhance economic growth and business environment.

Furthermore, the Nigerian banking sector should further be reformed and deepened to enhance its operational efficiency for remarkable increase in the Nigeria gross fixed capital formation. The bank business environment (political, regulatory, macroeconomic and monetary dimensions) should properly be integrated with the operations of the banking industry to enhance its operational efficiency and impact on Nigeria economic growth. There should be full deregulation of banking operations such as interest rate to enhance effective allocation of financial resources by the banking sector. Macroeconomic policies such as income policies should properly be reformed to reduce poverty, reduce unemployment and effective distribution of income that will increase deposit mobilization and savings by the banking sector. The government should embark on sectorial policy reforms such as the communication sector to attract bank credit. The entire financial system should properly be put in place for effective functioning to enhance Nigeria gross fixed capital formation. The regulatory authorities such as the Central Bank of Nigeria (CBN) should partner with the banking sector and other financial institutions to enhance effective resource mobilization and allocation in Nigeria.

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# Impact of Infrastructure and Exchange Rate on FDI Inflows in Nigeria: An ARDL Analysis

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***Abstract***
*This study investigates the impact of infrastructure availability (with electricity power consumption and exchange rate as proxy) on the inflow of Foreign Direct Investment (FDI) to Nigeria, using annual data from 1984 to 2018. Unit root test and ARDL (bound test) and Granger causality test are used in investigating the relationship between the variables. The unit root test indicates that FDI inflows and infrastructure are stationary at level value 1(0) while exchange rate is stationary after first difference 1(1). The bound test (ARDL) results reveal that infrastructure and exchange rate have positive and statistically significant influence on the flow of FDI. Granger causality results show that there is bidirectional causality between FDI inflow and infrastructure availability. Similarly, there is unidirectional causality running from exchange rate to FDI flow in Nigeria. The study, therefore, recommends that government and the private sector should improve on power transmission and distribution in order to reduce the cost of doing business in the economy and in turn attract more investors to the economy. Also, policymaker should re-design the existing exchange rate policy so as to create investors' confidence in the country's currency.*

***Keywords:*** *Infrastructure, Exchange rate, FDI inflow, ARDL, Nigeria*

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**Introduction**

The contribution of Foreign Direct Investment (FDI) towards the economic growth of nations is well documented in literature. Nigeria and indeed developing economies stand to gain immensely from the flow of FDI to their economies. This includes the flow of FDI helps in bridging the gap between low levels of savings for domestic investment. FDI flows are mostly directed to important sectors of the economy such as oil and Gas the telecommunication and the manufacturing sectors. These sectors serve as stimulants to the growth and development of the economy. Also, when sufficient quantum of FDI is attracted to an economy, it facilitates the transfer of skills and modern technology that will enhance modern way of production. This will no doubt reduce the cost associated with production as well as increase the quality and quantity of goods produced in the economy. However, the location of foreign investment in an economy is only viable if certain factors are present. These factors include availability of infrastructure and macroeconomic stability in the form of relatively stable exchange rate. Availability of infrastructures such as electricity, telecommunication, good road network, internet access and rail network in an economy reduces the cost of doing business there by increasing the amount of net return on investments. This motivates more investors to site their investments in that economy as the primary goal of any investment is increase in the net return on capital invested. Similarly, availability of critical infrastructure signals to the investors the government commitments regarding foreign investments in that economy.

Due to the collapse of Bretton Woods system in the year 1973, there has been instability in exchange rate among nations including Nigeria. This has made investors sceptical as to where to site their investments. When an investor is in uncertain about the stability of a countries currency it makes him to choose an alternative destination where he can predict with certainty the stability of the country's currency as well the future prospects of his investments. According to Froot and Stein (1991), an increase in exchange rate in the host economy can lead to an increase in the value of an investment making the foreign investor relatively richer. This in turn creates investors' confidence resulting in the increase in the flow of FDI to that economy. Studies of this nature were conducted by AbdulRahamn, Ilyas, Alam and Akram (2011) in Pakistan, Prince and Victor (2014) in Ghana, and Ngwen (2016) in Cameroun. However, to the best of our knowledge none of the studies was carried out on the impact of infrastructure and exchange rate on FDI in Nigeria. Hence, this study intends to fill that gap. The objective of this of this study is to analyse the nexus between infrastructure, exchange rate and the inflow of FDI during the period 1981 to 2014. This will contribute to the present literature by empirically examining the interaction that subsists between the variables under review.

**Literature Review**

Due to the perceived importance of FDI to the host economies, several scholars MacDougall (1958), Kemp (1964), Vernon (1966), Hymer (1976), Hood and Young (1979), Dunning (1981), and Richard (1998), have put forward different theories that attempt to explain why multinational corporations undertake foreign investments instead of producing in their home countries and then later export. These theories represent a significant step towards understanding the development of a systematic framework for the emergence of FDI. However, due to the complexities in various host economies, nature of FDI and the motives for undertaking foreign investment as well as the methodologies used in assessing FDI, the capacity of each theory to serve as a self-contained general theory, which could explain all types of FDI undertakings has been questioned in the works of various scholars such as Agarwal (1980), Van Parys & James (2010) and Itagaki (1991). Some of these theories are:

*Location Theory*, which states that multinational corporations would choose to invest in a location, that is close to markets or raw materials so as to consolidate the investment position of the firm. Once an investment location attracts more and more FDI it becomes an agglomeration location. Concentration of production and urbanization facilitate quick spill-overs of knowledge and the use of joint networks of suppliers and distributors (Hood & Young, 1979).

Regarding FDI and the factors that motivate the emergence of multinational corporation at the nternational scene, Dunning (1973), Van Parys and James (2010), Kuşluvan (1998), and Parry (1980) are of the view that location theory when extended across national boundaries can go a long way in explaining why multinational corporation go internationally to invest rather than produce at home to be exported abroad. Location determinant can be conveniently grouped into two, namely, the *Supply-oriented Location Theory*, which explains why that production takes place where the factor costs for production (including distribution) are the lowest; and the *Demand-oriented Location Theory*, which asserts that the location of a firm is governed by the location of its market and competitors (Dunning, 1973). Combining the two theories, four main locational factors can be deduced. These include: availability of raw materials for their companies, low labour cost, secured market for their products, and availability of infrastructure are believed to give rise to the emergence of MNEs (Buckley & Casson, 1976). However, the short comings of the location theory are that although the theory provided some useful insights as to geographical distributions of MNEs, it fell short in explaining how comes that foreign owned firms could outcompete with domestic firms in supplying their own market? (Dunning, 1979), neither did the theory explain the actual origin of MNEs (Kuşluvan, 1998).

*Currency Theory* is another theory which sought to explain FDI with regards to difference in currency strength differences from the perspective of international trade (Itagaki, 1991; Cushman, 1985). The assumption of a perfect economy and perfect competition requires the assumption that prices everywhere are adjusted to bring supply and demand into equilibrium. However, in a real situation, due to segmentation in world markets rates of return are not equalized internationally. In a state of disequilibrium, flows of FDI would take place between low rate of return to higher rate of return economies until markets return to stability. Instances of disequilibrium conditions that provide incentives to invest abroad are those which apply to factor markets and foreign exchange markets (Piggot & Cook, 1999). Ragazzi (1973) stated that currency overvaluation is perhaps the most salient example of the disequilibrium hypothesis. A currency may be defined as overvalued when at the prevailing rate of exchange production costs for tradable goods in the country are on the average or higher than in other countries. Such an occurrence creates opportunities for profit-making by holding assets in undervalued currencies with the expectation that, once the equilibrium in the foreign exchange market is re-established, capital gains will be realized. In meantime, there is an incentive to locate production of internationally traded commodities in countries with undervalued currencies and to purchase income producing assets with overvalued money. The important point is that, once exchange rates return to equilibrium, the flow of FDI should stop. Even more foreign investors should sell their foreign assets, pocket the capital gains, and return to domestic operations.

In the view of Aliber (1971), the theory explains why multinational companies engage in foreign investment can best be explained in terms of the relative strength of different currencies. Companies from countries having a strong-currency move out to establish themselves in host economies that have weak currencies relative to their country of origin. In a weak-currency country, the income stream is fraught with greater exchange risk. As a result, the income of a strong-currency country firm is capitalized at a higher rate. In other words, such a firm is able to acquire a large segment of income generation in the weak-currency country corporate sector. According to Froot and Stein (1991), the depreciation in the real value of currency of a host country lowers the wealth of domestic residents of that economy which in turn increases the wealth of the foreign investor. As a result, it is cheaper for foreign firms to acquire assets of domestic firms. In the view of Richard (1988), foreign investments are influence by exchange rates differences through a number of channels. He observed that, changes in exchange rate have significant influence on the cost and revenue stream of a firm. If the domestic currency depreciates, the import bill will inflate, diminishing in turn the net income; but, if export expands during the period of currency depreciation, income will rise. Similarly, exchange rate changes influence FDI by giving rise to capital gains. Depreciation in the value of currency, which is expected to be reversed in the near future, will lead to capital gains following appreciation. In lure of capital gains, foreign capital will flow in.

***Empirical Studies***

Infrastructure availability in an economy has a special role to play in attracting FDI and promoting economic development through reduction of cost of doing business in an economy (Koyuncu & Mustafa, 2016). According to Ogunleye (2014), the extent of growth and development of every society largely depends on the efficient use available natural resources in that economy to develop the basic infrastructure necessarily to support other factors of production. Frischman (2007) views infrastructure to include such things as telecommunication, energy, transportation, governance, and other public utilities. Fahmi (2012) opined that the best proxy to represent the availability of infrastructure in an economy is the use of Gross Fixed Capital Formation (GFCF). In his view infrastructure such as roads network, telephones, internet availability, pipe borne water, and ports, only reflect the existing infrastructure and not the potential infrastructure as it is included in GFCF. Abdul Rehman, Ilyas, Alam and Akram (2011) carried out studies on the impact of infrastructure development on the flow of FDI, in Pakistan during the period 1975 to 2008. The results of their studies show that infrastructure has a positive impact on attracting FDI. The studies of Asiedu (2002), Morisset and Pirnia (2000), and Wheeler and Mody (1992) also support the fact that FDI has a significant impact on the flow of FDI. The results of their studies show that foreign investors seek to establish themselves in such place with better market opportunities and where they can achieve cost reduction and maximization of benefits which can only be made possible where infrastructures are in good and better condition and supportive to investors.

Iwanow and Kirkpatrick (2006) posit that availability of quality infrastructure has a significant impact on the flow of FDI and improvement in export performance of the host economy. Their study reveals that an improvement in the availability and quality of infrastructure by 10% will result in an 8% improvement in export performance of the host economy. Studies of Elijah and Festus (2008), Manop, Holger and Oliver (2006), and Lee and Hsieh (2014) sought to determine whether exchange rates are significant determinants of FDI inflow to host countries. Most of these studies have established that there exists a significant positive relationship between the depreciation in the value of the local currency and the flow of FDI to the host economy. Scholars on the subject matter have put forward several suggestions as to why exchange rate have a positive relationship with currency depreciation with some suggesting that the effect of the exchange rates on FDI is due to supply-side or push factor effect on FDI. That is to say, a stronger home currency increases outward FDI (Froot & Stein, 1991; Klein & Rosengren, 1994). Others were of the opinion that the interaction of exchange rate with FDI is due to the allocation effect, i.e. FDI goes to countries where the currency is weaker as a given amount of foreign currency can buy more investment (Cushman 1985; 1988; Campa, 1993; Goldberg & Kolstad, 1995; Blonigen, 1997; Chakrabarti & Scholnick, 2002). According to Lee and Hsieh (2014), the depreciation of the host country currency is likely to attract FDI inflows due to the following reasons: Firstly, the foreign investor usually multinational corporations has an advantage over domestic investors because the foreign investor has an edge in obtaining financing from the international financial market in hard currencies when compared to his domestic counterpart. This will make them to the opportunity of undertaking profitable projects requiring huge capital outlay which the domestic investor is incapable of undertaking due to financial constraints. As a result of this, countries with weak currencies tend to be a suitable destination for FDI while countries with strong currencies tend to be sources of FDI. Secondly, when a country's currency depreciates in value, it tends to make the production cost of good lower when compared with the investor's home country, thereby making it attractive for FDI seeking production efficiency and revenues.

Ebiringa and Emeh (2013) investigated the determinants of FDI in Nigeria. Using time series data, econometrics techniques incorporating stationarity test, cointegration, error correction mechanism and variance decomposition analysis, the study revealed that exchange rate is a statically significant determinant of FDI flow and that it exerts a long run negative effect on FDI flows in Nigeria. Tokunbo and Lloyd (2009) empirically investigated the impact of exchange rate volatility in Nigeria on the flow of FDI. They used co integration and error correction techniques in the analysis of their data. The results of the study confirmed a significant positive relationship between the host economy's currency depreciation. Froot and Stein (1991) explained that a depreciation of domestic currency decreases the domestic asset price in terms of other foreign currency and attracts foreign investors to invest their capital. At the same time, foreign assets become more expensive for domestic investors and impede them from investing abroad. This condition explains increasing in US' FDI inflow during the depreciation of US Dollar around 1985.

**Methodology**

In order to understand the nexus among the variables, this study applied Autoregressive Distributed Lag (ARDL) Model for estimation. Moreover, prior to model estimation, the properties of the variables under study were tested in order to know the stationarity levels. The econometrics techniques used was the Augmented Dickey-Fuller (ADF) test. The model used in this study was adopted from the work of Hodge (2012) with little modification in order to estimate the relationship among the series. The variables incorporated in the model are Foreign Direct Investment (FDI), infrastructure, which has electricity power consumption (EPC) and exchange rate (EXR) as proxy. The study made used of secondary time series data sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin and World Development Indicators (WDI), a publication of the World Bank, 1984 to 2018. FDI is the dependent variable in millions of US Dollars while infrastructure and exchange rate are the independent variables. The dependent variable in this study is the aggregate flow of FDI from 1984 to 2018. In other words, it is the summed aggregate inflow of foreign direct investment into the Nigerian economy during the period under review. The proxy has been used by scholars such as Babatunde and Adepoju (2012), and Olalaye (2016).

Availability of sound physical infrastructures such as stable electricity supply, good road network, internet access, air and seaport can create a more favourable investment climate that will enhance the inflows of FDI. Infrastructure reduces the transaction cost of doing business in an economy there by increasing the return on capital invested. Infrastructure in this study has Electricity consumption (EC) as proxy. This proxy has been used by Wheeler and Mody (1992) and Asiedu (2002). Exchange rate measures the price of one currency in terms of another currency. In this study, the exchange rate of Nigeria (Naira) to USA (Dollar) is adopted. A weak exchange rate makes import expensive and export cheap, and hence may likely impact positively on FDI inflow. All the data for the variables were converted into natural logarithm form to make them into the same base for easy analysis and interpretation. Therefore, the econometric model is given as follows:

$$In(FDI_t) = \beta_0 + \beta_1 In(EPC_t) + \beta_2 In(EXR_t) + \varepsilon_t \quad \text{..............................................1}$$

***Unit Root Test***

Despite the fact that ARDL approach does not necessitate pre-testing of series variables, however the series cannot go outside integrate order of I(1) for the results of the study to be valid. Therefore unit roots testing will be necessary in order to ensure that none of the variables is integrated to the order of two I (2) test, since the data generating process of the variables is not known. If the time series data is found to be non-stationary, it will be difficult to represent the time series in an equation with fixed coefficients (Pindyck & Rubinfeld, 1998). Therefore, if variables are non-stationary at level value as expected for most macroeconomic variables, the data will then be differenced. In testing for unit root, the study made use of Augmented Dickey-Fuller (ADF). The model is given as:

$$\Delta y_t = \alpha_0 + \alpha_1 y_{t-1} + \sum_{j=1}^{p} \alpha_i \Delta y_{t-1} + \mu_t \quad \text{.................................................2}$$

Where $\Delta y_t$ is the change in y at period t, $\alpha_0$ represents constant, $y_{t-1}$ is the lag value of y, $\alpha_1$ is the estimated lag coefficients and $\mu_t$ is the error terms (Umar, 2014).

***Model Specification***

This study makes used of ARDL approach developed by Pesaran *et al* (2001) to estimate the nexus among the variables. The rationales behind the choice of this approach are: first ARDL can be applied irrespective of whether the variables are stationary at level value I(0) or at first difference I(1) or combination of both. Second, it can generate robust and reliable results even if the number of observations is small or large. Finally, ARDL is valuable because it permits us to describe the presence of an equilibrium relationship in terms of long-run and short-run dynamics without missing long-run information (Hassan, 2017). Aligned with Pesaran, Shin and Smith (2001), the ARDL model is given as:

$$\Delta LFDI_t = \beta_o + \sum_{i=1}^{m} \beta_1 \Delta LFDI_{t-i} + \sum_{i=1}^{m} \beta_2 \Delta LEPC_{t-i} + \sum_{i=1}^{m} \beta_3 \Delta LEXR_{t-i} + + \alpha_1 LFDI_{t-1} + \alpha_2 LEPC_{t-1} + \alpha_3 LEXR_{t-1} + \mu_t \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.3$$

Note that $\beta_0$, to $\beta_3$ and $\alpha_1$ to $\alpha_3$ are the parameters of the explanatory variables. Additionally, the Error Correction Model of the ARDL approach is specified as:

$$\Delta LFDI_t = \beta_0 + \sum_{i=1}^{m} \beta_1 \Delta LFDI_{t-i} + \sum_{i=1}^{m} \beta_2 \Delta LEPC_{t-i} + \sum_{i=1}^{m} \beta_3 \Delta EXR_{t-i} + \beta_5 ECM_{t-i} + \mu_t \quad ....4$$

The ARDL model is structured into two; the first part of the equation with β0 to β4 represents the short-run dynamics of the model, while the coefficients α1 to α4 represents the long-run relationship. The null hypothesis of the above model is defined as H0: $\alpha1= \alpha2= \alpha3 = 0$ which tell us that there is no co integration among the variables under measurement. Furthermore, the study began the analysis by conducting co integration test of the ARDL in order to find out the evidence of long-run relationship. The calculated F-statistics is compared with the critical value as tabulated by Pesaran *et al* (2001). If F-statistic is greater than the upper critical value, then the decision rule will be to reject the null hypothesis of no long-run relationship, whereas if it falls below a lower critical value, then the null hypothesis cannot be rejected and if it falls within these two critical bounds, then the result is inconclusive (Pesaran *et al*, 2001).

**Presentation of Results**

| **Table 1: Unit Root Test using ADF** | | |
|---|---|---|
| Dependent Variable: LNFDI | | |
| Variable | Level 1(0) | 1st Difference I(1) |
| LNFDI | -3.9661** | -10.7104*** |
| LNEPC | -3.3896* | -7.7574*** |
| LNEXR | -1.2176 | -5.3622*** |

Notes: ***, **, and * indicates significance at 1%, 5% and 10% respectively

**Source:** Authors computation using Eviews 9.5

From Table 1, the results of the unit root test show that LNFDI and LNEPC were stationary at level value while LNEXR became stationary after the first difference. From the forgoing, it is found that the variables were stationary at different order of integrations with some at level value I(0) and other at first difference I(1). Therefore, the best method to handle the result of this nature is ARDL. We than go ahead to conduct bound test of ARDL and the result is as presented below:

**Table 2: LAG Selection Criteria**

| Lag | LogL | LR | FPE | AIC | SC | HQ |
|---|---|---|---|---|---|---|
| 0 | -69.28351 | NA | 0.018392 | 4.517719 | 4.655132 | 4.563268 |
| 1 | 6.587357 | 132.7740* | 0.000283* | 0.338290* | 0.887941* | 0.520484* |
| 2 | 11.61421 | 7.854463 | 0.000369 | 0.586612 | 1.548501 | 0.905451 |

**Source:** Author Computation using Eviews

* indicates lag order selected by the criterion

Optimal lag-length selection test was carried out to know the optimal lag to be included in the model. This is because the lag included in the model can have an impact on the long run relationship of the variables in the system equation. Hence using Akaike Information Criterion (AIC) and Schwarz Bayesian Information Criterion (SBC) to select optimal lag length, the results reported that the best lag to be included in the model is lag one.

**Table 3: Bound Test for ARDL**

| Test Statistics | | Value |
|---|---|---|
| F- Statistics | | 4.78 |
| Critical Value Bounds | | |
| Significance | Lower Bound I(0) | Upper Bound I(1) |
| 10% | 2.63 | 3.35 |
| 5% | 3.10 | 3.87 |
| 1% | 4.13 | 5.00 |

Source: Author Computation Using Eviews 9.5

The results from Table 3 indicate that there is an evidence of long run relationship among the variables in the model. This is because the F-statistic (4.78) is greater than the lower and upper critical bounds at all significant levels.

**Table 4: Long Run Coefficient of ARDL**

| Dependent Variable : LNFDI | | | | |
|---|---|---|---|---|
| Independent Variables | Coefficient | Std.Error | t- statistics | Prob |
| LNEPC | 2.4193 | 0.5975 | 4.0489 | 0.0004 |
| LNEXR | 0.3397 | 0.0815 | 4.1692 | 0.0003 |
| C | 9.0061 | 2.5779 | 3.4936 | 0.0017 |
| $R^2$ =0.90, Adj. $R^2$ =0.89, F-statistics= 62.3088 (0.000), DW-Stat. = 2.0137 | | | | |

Source Author computation using Eviews 9.5

Table 4 shows the results of long run relationship among the variables in the system equation. According to the results, infrastructure has positive and statistically significant influence on FDI inflows in Nigeria. This implies that 1% change in infrastructure will lead to 2.42% change in FDI inflow. Additionally, exchange rate has positive and statistically significant effect on the inflow of FDI to Nigeria. A unit increase or decrease in exchange rate will lead to 0.34 increase or decrease in FDI inflow in Nigeria. The result also reveals that irrespective of infrastructure and exchange rate, FDI inflow to Nigeria will remain at 9.0061 and this is statistically significant at 1%.

**Table 5: Short run Coefficient of the ARDL Model**

| Dependent Variable: D (LNFDI) | | | | |
|---|---|---|---|---|
| Independent variables | Coefficient | Std.Error | t-Start. | Prob. |
| D (LNEPC (-1)) | 1.2409 | 0.5303 | 2.3399 | 0.0269 |
| D (LNEXR(-1)) | 0.0731 | 0.1812 | 0.4036 | 0.6897 |
| ECM(-1) | -0.7456 | 0.1687 | -4.4194 | 0.0001 |

**Source:** Authors computation using Eviews 9.5

The estimated short run results show that there is positive and statistically significant relationship between infrastructure and the inflow of FDI to Nigeria.in the same vein exchange rate is reported to have positive but statistically insignificant effect on the inflow of FDI during the period under review. The ECM results has the correct sign, i.e. negative, less than one (-0.7456) and this is statistically significant at 1%. It means that in the event of any disequilibrium, the system will correct itself annually at the speed of 75%.

**Table 6: Diagnostic Test Results**

| Tests | F-Statistics | p- value |
|---|---|---|
| Auto- correlation | 0.1578 | 0.8548 |
| Heteroscedasticity | 0.7672 | 0.5559 |
| Normality | 0.3941 | 0.8211 |

**Source:** Author computation Using Eviews

The results of the Table 6 show that the model is free from serial correlation. This is as indicated by the insignificant p-value of 0.8548. The test for Heteroscedasticity reveals that there is no evidence of variation in mean and variance of the model. This is as shown by the p-value of 0.5559. The results of the normality test indicate that the data are normally distributed as shown by the p-value of 0.8211.

Moreover, the study conducted stability test in order to determine the adequacy of the model and parameters. In the process, the study makes the use of Cumulative Sum of Recursive Residual (CUSUM) and Cumulative Sum of Square of Recursive Residual (CUSUMQ). The result presented in Figures 1 and 2 show that the model and parameter under estimation are stable. This is due to the fact that the recursive errors lines fall within the two critical lines of the CUSUM and CUSUMQ.

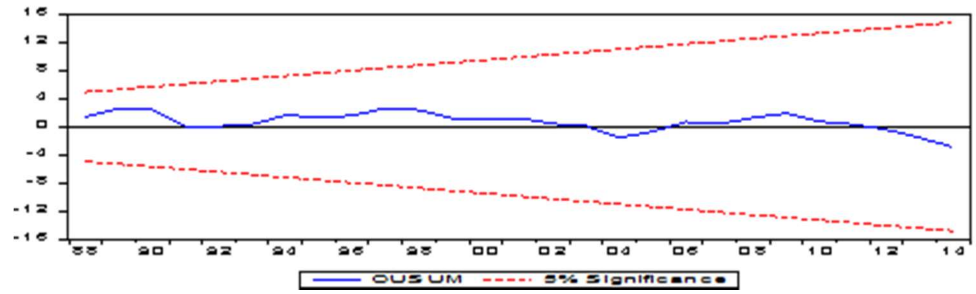


Figure 1

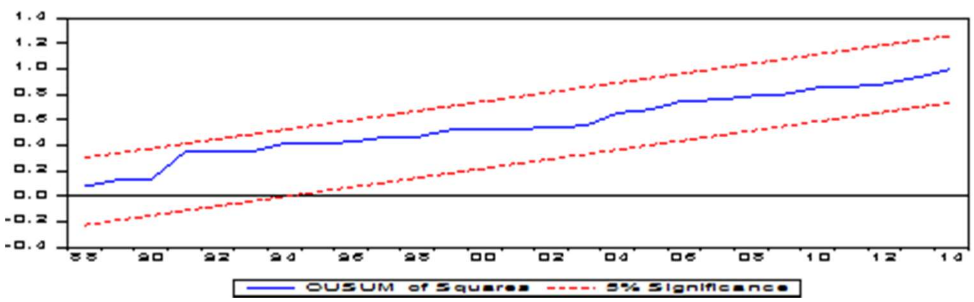


Figure 2

***Granger Causality Test***

As indicated in Table 7, the Granger causality results show that there is an evidence of bidirectional causality between infrastructure and FDI inflow during the period under review. This is as a result of the significant p-values of F-statistics (0.0741 and 0.0791). Similarly, it is evident that there is unidirectional causality running from exchange rate to FDI inflows as shown by the significant p value of 0.0020.

**Table 7: Granger Causality Test Results**

| Null Hypothesis: | Obs | F-Statistic | Prob. |
|---|---|---|---|
| LFDI does not Granger Cause LEPC | 34 | 3.42351 | 0.0741 |
| LEPC does not Granger Cause LFDI | | 3.30409 | 0.0791 |
| LEXR does not Granger Cause LFDI | 34 | 11.3288 | 0.0020 |
| LFDI does not Granger Cause LEXR | | 2.31482 | 0.1383 |

**Conclusion and Recommendations**

From the analysis of the results, we have established that that infrastructure and exchange rate have positive and statistically significant influence on the flow of FDI to Nigeria during the period under review. This implies that availability of stable electricity supply in the country can raise the level of productivity of companies, reduce the cost of production since they do not have to fuel their alternate source of power to make production. This will translate to increase in the return on investments there by motivating the increase in the flow of investment, particularly foreign direct investment. The study, therefore, recommends that in order to enhance the increase in the flow of FDI and benefit from the positive externalities attached, the government should do the following: The government should ensure the provision of stable electricity. This can be done through increased in private sector participation as well as looking at the possibility of having an alternate source of power such as Nuclear and solar source. This will pave way for the country to join the league of twenty most industrialized nations. Similarly, most investors will be more willing to invest in an economy where the cost of production due to instability of power is not high. The government should consider the possibility of replacing the ageing thermal power stations as well as the hydro plant currently producing below the installed capacity generation to feed the 40% of the population that are connected to the national grid. The transmission company currently owned by the Nigerian government should be fully privatized. This will ensure enhance electricity supply as means of attracting investors into the economy.

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# Effect of Workplace Management on Organizational Growth: A Study of Selected Manufacturing Firms in Abia State, Nigeria

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***Abstract***

*The study examined the effect of workplace management on organizational growth, focusing on selected manufacturing firms in Abia State, Nigeria. The factors militating against workplace management in the selected organizations were addressed. Descriptive survey design was used, involving both primary and secondary sources of data. The study targeted the 150 management and staff of Seven-Up Bottling Company and Tonimas Company, all in Aba. The sample size 109 was derived using the Taro Yamane formula. A total of 109 questionnaire were administered, 19 (17.4%) questionnaire was lost and 90 were realized, which translates to a response rate of 88.3%. To test the hypotheses of the study, Multiple Regression model was used. The findings of the study reveal that Poor communication and technology are the major challenges facing workplace management of the selected manufacturing firms in Abia State, Nigeria; with p-value = .009, .001, and .012 respectively. The study recommends that managers should effectively coordinate employee schedules, and as well, improve employee and client relations; stay abreast of changes to employment law; and ensure safe environment and productive workplace management always.*

**Keywords:** *Workplace Management, Workplace Environment and Organizational Growth.*

**Introduction**

Workplace management requires managers to monitor, plan and control worker activities or workplace conditions. The results from controlling and monitoring are very important in assessing whether the control measures in use are impacting both the worker and environment effectively towards enhancing organizational effectiveness (Boyce, Veitch & Newsham, 2013). Thus, workplace management is changing as the nature of work and the role of the workplace in business strategy are changing. Organizations of all sizes, across all sectors, are re-planning and re-configuring their workplaces to better attune to work processes and work styles at hand (O'Neill & Wymer, 2011). However, to achieve effective workplace management, workplace managers have a general duty to engage with workers. In addition, managers must engage with workers when identifying hazards and assessing risks to health and safety, proposing changes that may affect workers' working environment, making decisions about ways to eliminate or minimize danger at work, procedures for resolving health or safety issues, considering whether facilities for workers' welfare are adequate, procedures for engaging with workers, procedures for monitoring workers' welfare packages, procedures for monitoring workplace conditions, procedures for providing information and training for workers, developing worker participation practices, including determining work groups and carrying out any other activity specified in policy of the organization. This in turn boosts employee performance and organizational effectiveness (Campbell, 1999). Good workplace management takes into consideration the size, location and nature of the organization, number and composition of the workers at the workplace, nature of the work being carried out and the workplace hazards and the views of workers. Furthermore, workplace management assumes that workplace facilities are sufficient in number and maintained in good working order, and are clean, safe, and accessible for effectiveness and efficiency at work (Leaman, 2013).

Workplaces and workplace management facilities have to do with information, instruction, training and supervision, personal protective equipment (PPE), monitoring worker exposure, monitoring worker health, first aid equipment, facilities and first aiders, emergency plans, young workers and young people at workplaces. Workplace management involves the practices that give workers reasonable opportunities to participate effectively in improving welfare, training and development in the business or undertaking on an on-going basis (which are worker participation practices). It includes processes for workers to report health and safety issues such as concerns that risks are not being adequately managed (Ettner & Grzywacs, 2001). To manage workplace effectively, work areas must have sufficient space for work to be carried out; surfaces are designed, installed, and maintained to allow work to be carried out; lighting is suitable and sufficient to enable each worker to carry out work without risks; persons to move within the workplace without risks and safe evacuation in an emergency; ventilation is suitable and sufficient to enable workers to carry out work; and workers carrying out work in extremes of heat or cold are able to do so without risks to health and safety. This study seeks to examine the effect of workplace management on organizational effectiveness, focusing on selected manufacturing firms in Abia State, Nigeria. There is poor control and monitoring in many workplaces, which pose long-term risk to healthy welfare packages, employee performance and employee job security and safety. Some firms do not have adequate facilities provided for workers at their workplace, the toilets in the workplace are bad and dirty; drinking water is tasty, as a result poor drilling of pipe borne water; hand-washing facilities after toilet (i.e. sanitizer, hand towels and soap) are lacking, no convenient room for relaxation, and facilities for unwell workers to get treatment are unavailable. Furthermore, there is a poor supervision of work and lack of training and development, resulting in majority of workers not getting acquainted with their jobs. Some employees are not aware of the risks associated with their work, most managers fail to conduct training programmes for their staff; there is no provision of instructional materials, with ineffective communication tools to disseminate information at the workplace. All these irregularities lead to low performance of employees, and on the long-run, affect organizational performance.

Manufacturing firms are faced with so many factors that affect workplace environment such as lighting, noise, power supply, equipment's, dilapidated building, poor office equipment, obsolete machines and non-conducive working environment. There is increase in poorly designed workstations, unsuitable office furniture, insufficient space for ventilation and free movement from one office to another. Workplace changes in terms of cost reduction, team cohesion, poor technological innovation, motivation and incentives and poor career development support are ignored and disrespected by several organizations. The discriminatory attitude of managers, individual identity, nepotism, stigmatization, stereotype, racism and tribalism, as well as lack of cooperation have been extended by workers in diverse ways; which dampen morale of workers towards achieving organizational goals and objectives. Employees no longer chase departmental goals; corporate profitability dwindles because the core values of diversity are not properly harnessed. This has created divergence and uncertainty in the workforce, as management is not skilled enough to manage and control the concept of workforce diversity and its ethics, so they find it difficult to effectively practice workforce diversity management. This in turn has become an albatross on their neck. Against this backdrop, this study seeks to investigate the impact of workplace management on organizational effectiveness, focusing on selected manufacturing firms in Abia State, Nigeria. The broad objective of the study is to investigate the effect of workplace management on organizational growth using selected manufacturing firms in Abia State, Nigeria. The specific objective is:

*To analyse the factors militating against workplace management in selected Manufacturing firms in Abia State, Nigeria.*

The research question is:

*What are the factors militating against workplace management in the selected manufacturing firms in Abia State, Nigeria?*

The research hypothesis is:

*Ho: Poor communication and technology and innovation are not factors militating against workplace management in the selected manufacturing firms in Abia State, Nigeria.*

## Literature Review

### *Workplace Management*

For many employees, the current state of the workplace management is depleting, dispiriting and stressful. *Doing more with less* often means demands are exceeding capacity, draining people of the energy needed to fulfil their potentials. Technology links us 24/7 to a flood of information, and organizations are spending more and more hours working with little downtime. Research has shown that creating a caring management in the workplace ultimately leads to improved customer service, better health outcomes and organizational effectiveness. Thus, having good workplace management where employees and business thrive will provide firm with detailed suggestions, many for little or no cost, on how to shape a culture of thriving so organization can achieve the valuable outcomes that benefit both employees and the bottom line (Howell & Higgins, 1999). Increasing employee engagement, productivity, satisfaction and retention is essential to any successful business; but firms often struggle to achieve those diverse outcomes. Organizations can achieve the most valuable outcomes by focusing on one key strategy: creating a caring workplace management, with adequate knowledge and experience of similar places, and work, plant, or substances of that kind, to ensure that the worker carrying out the work is not likely to adversely affect the health and safety or cause harm to the worker or another person or is adequately supervised by a person who has adequate knowledge or experience (Naharuddin, 2013). Management must also ensure, so far as is reasonably practicable, workers are adequately trained in the safe use of plant, objects, substances, or equipment that the worker is or may be required to use or handle, including all personal protective equipment (PPE). Many organizations fail to thrive because their employees are not thriving. To thrive, we need to experience: i) vitality or feeling truly alive every day, and ii) learning. When they are at their best thriving, employees experience *flow* or deep immersion in an activity, so that they lose awareness of time and their surroundings. Workplace management policies are indicative of a culture that should value people, but there are many other ways to help employees thrive in the workplace. Without heroic measures or major financial investments, leaders can jumpstart a better workplace management culture by focusing on these seven powerful strategies:

- Share information about the organization and its strategy.
- Provide decision-making discretion and autonomy.
- Create a civil culture with positive relationships.
- Value diversity and establish an inclusive atmosphere.
- Offer performance feedback.
- Provide a sense of meaning.
- Boost employee well-being (Fayard & Weeks, 2011).

These levers are derived from research into what factors help employees most, and taken together they account for most of the variation in how much people thrive in the workplace. When organizations create effective workplace management, they and their employees stand to reap abundant benefits and to improve the work environment in each organization (Fisher, 2013).

***Problems Facing Workplace Management***

- *Stress in the Workplace*

Stress is one of the common problems that occur in all kinds of jobs. Managers and directors within the organizations or educationists in universities have their job duties; in other words, all the individuals who are employed have their respective tasks and duties. The job duties can be manageable, but all job duties require concentration and diligence; hence stress is a normal experience for individuals. There are a number of situations within the organization and the workplace that are identified as being stressful. For instance, a teacher employed in a nursery school to handle a class of play group students, may feel stressed, as nursery school students are young and difficult to handle. If an employee has to prepare several articles in a short period of time, he may feel stressed-up, as work pressure is one of the common features of stress (Hayrol & Uli, 2010). The main areas that normally lead to stress amongst the individuals are financial worries, work overload, unemployment, relationships, family issues, managing, both work and household, health problems, caregiving, competitiveness, peer pressure, achievement of targets, and inappropriate time management. Individuals do experience stress within the working environment, but they adjust themselves in order to deal with all kinds of stressful situations. When an individual experiences stress, he displays certain kinds of attitudes and behavioural traits, such as, anxiety, irritability, sadness, anger, frustration, loss of appetite, defensiveness, mood swings, impatience, inadequate performance in one's job, withdrawal and isolation from the other individuals, etc. The influence of stress on the health conditions of the individuals occurs in the form of headaches, fatigue, high blood pressure, insomnia, muscle ache, chest pain and frequent illness (Jex, 2002).

- *Diversity in the Workplace*

Diversity involves acknowledgement, understanding, accepting and valuing the differences amongst the individuals belonging to diverse backgrounds, with respect to age, race, gender, ethnicity, religion and disabilities. The individuals employed in the workplace are from diverse groups and backgrounds. People are different in terms of caste, creed, race, religion, ethnicity, gender and socio-economic background. People from different groups and backgrounds should be given equal opportunities and there should not be any kind of discrimination between them. Managers and supervisors are required to recognize the ways in which a workplace is undergoing transformation. The management of diversity is regarded as a significant organizational challenge and the management of the organizations are required to formulate their skills in a manner that they should accommodate the multicultural environment. The employment of women in the workplace, organizational restructuring and equal opportunity legislation will require the organizations to review their management practices and develop innovative strategies and approaches to manage people (Hersey & Blanchard, 1993). Major transformations within the workplace have taken place due to downsizing and outsourcing, which have largely impacted on human resource management. With the influence of globalization and technologies, there had been changes brought about in the workplace practices and procedures. Discriminatory treatment within the workplace has been regarded as unlawful, rights and responsibilities of both the employers and the employees are specified and both groups are held equally responsible for the occurrence of any kinds of problems and issues. There are challenges encountered in the management of the diverse workplace population; hence managing diversity is more than the acknowledgement of differences amongst individuals. It involves recognition of the values of differences, combating any kind of discriminatory treatment, and promoting inclusiveness.

- *Communication at the Workplace*

Communication is regarded as the life line in the operation of any kind of organization or institution. Without effective communication between the individuals, policies cannot be implemented or put into operation in any manner. Speaking to one another constitutes verbal communication; whilst sending of emails, letters, faxes, notices, articles, documents and so forth are written forms of communication. There are organizations where employees may not possess the ability to learn, understand and make use of good communication practices; in such instances, it is vital to give them adequate training, to enable them develop effective communication skills. Within the organizational structure, workplace communication is useful in providing training, making suggestions, and presenting ideas, instructions, viewpoints, etc, by superiors to their subordinates. When the communication process is not adequately developed and there exist some barriers to effective communication, then it becomes difficult for individuals to adequately implement all tasks and operations in the organisation (Arman & Mastura, 2015). Problems and issues arise concerning communication at the workplace. These problems may be break down of technology, when emails could not be sent, occurrence of emergency situations, busy schedule of the employers, employees' inability to interact with them, inability to understand instructions which leads to poor job performance, etc. It is imperative to clarify ways to implement effective communication practices within the organization; the reason being, without effective communication, proper instructions cannot be given, equipment and supplies cannot be ordered, progress cannot be measured, and products and services cannot be delivered to the customers. The five main managerial functions of planning, organizing, staffing, leading and controlling are entirely dependent upon effective communication. Individuals do acquire knowledge and information through research and related aspects, but how the knowledge and information are communicated to the workforce matters the most, as it would contribute in the development of the organization. It is vital to develop appropriate interpersonal relationships within the organization to achieve desired goals and objectives (Ettner & Grzywacz, 2001).

- *Sexual Harassment of Women at the Workplace*

Sexual harassment is referred to as an inappropriate physical contact, advances, sexual remarks, showing pornography and making sexual remarks, whether, they are verbal, tactic, graphic or electronic or by any other actions, which may comprise of implied or open assurance of favoured treatment in that employee's employment. The women are usually assured of their employment, promotion and other incentives at the workplace in return for inappropriate demands. The employees may also be harmed and treated in a detrimental way, when they do not give their consent. Sexual harassment of women implies number of threats that are given to the women employees about their present or future employment status, including creation of hostile working environment for the women.

Working environmental conditions should always be favourable to the employees. On the other hand, creation of the antagonistic working environmental conditions involves creating room for sexual harassment. Sexual harassment is extremely intimidating, worrying and upsetting for the employees. The conduct largely interferes with the work of the employees, due to the feelings of fear and anxiety. They find it difficult to concentrate on their work; this way their performance too gets affected in a negative manner. The experience of sexual harassment can be humiliating and it may also have an effect on the health of the individuals. The employees do not feel safe at the workplace and the working environmental conditions become very intimidating, offensive and aggressive. The ultimate outcome of sexual harassment is pain, stress, trauma and emotional suffering.

***Prevention Strategies of Workplace Management***

The implementation of adequate prevention strategies would contribute in the alleviation of problems and issues. There are some problems that individuals cannot do away with; on the other hand, there are problems which can be solved by prevention strategies (*Solving the Problem*, 2005).

- *Organize Regular Team or Group Meetings*

Group meetings provide individuals with the chance to explain individual roles, responsibilities and powers, identify individual goals, objectives and expectations, give recognition, social support and feedback. The individual is able to find out ways that would help them in identifying flaws and inconsistencies, and implement measures to improve them; individuals are also able to share activities about the organization, discuss problems and devise solutions, stimulate dialogue with the supervisors and colleagues, and assess whether employees are satisfied with the work, as work pressure leads to decrease in employee morale (Gabriel, 2000).

- *Encourage Participative Management*

The term *participative management* is tenable when the management listens to concerns, problems and issues of the workforce and help them in providing solutions. The management is expected to be co-operative, supportive and helpful to the employees. The role of the management is considered to be of utmost significance in finding solutions to various kinds of problems. Management, thus, plays an important part in improving the relationships with the supervisors and the employees. They provide enough room for the employees to give suggestions and ideas, and as employees feel free to communicate with their supervisors and share their ideas and suggestions, they have a sense of belonging (Leblebici, 2012).

- *Training Programs for the Employees*

The main aim of training programs is to develop new knowledge and skills amongst the employees so they can implement their work duties properly. Training is always beneficial and productive for the employees; helps them to manage immense work pressure, advance in their careers, and eventually assume more responsibilities, power and autonomy. Training programs also provide information to the employees who may be experienced or are new to the organization; they are provided information mainly about the goals and objectives of the organization, their job duties, how to perform their job duties adequately, and measures that prove to be productive to the organization (Leblebici, 2012).

- *Determine the Content of Various Job Duties*

The individuals are positioned in various kinds of job duties in accordance to their educational qualification, skills, abilities and knowledge. It is vital to determine the content of various job duties; the important areas of content are: to determine whether there is work overload, clarify the roles, functions, tasks and responsibilities related to various positions, state expectations of the positions and make the goals and objectives of particular positions very clear to the employees. It is vital to devise measures to reduce certain risks that are connected to the work environment and the working conditions. The employees should always perform their work duties with carefulness, thoughtfulness, and attention (Leblebici, 2012).

- *Evaluation of the Employees*

It is vital to evaluate the performance of the employees. The main purpose of evaluation is to determine how one performs, to identify the flaws and inconsistencies and measures to improve them. The evaluation methods enable the employees to become more focused on their work; they become more achievement-oriented, and work meticulously towards on job duties. Upon completion of evaluation, problems of the employees who do not perform well are discussed, and they are provided with additional sessions regarding the job that would lead to improvement. Evaluation techniques help in the development of knowledge so that the employees stay relieved from experiencing any kind of stressful situations at work (Harnois & Gabriel, 2000).

***Theoretical Framework***

*Herzberg Two Factor Theory*

The Two-Factor Theory was advanced by Frederick Herzberg in 1959. This study is grounded on this theory that has been explored by various scholars to explain the relation between workplace environment and employee performance. Herzberg defined two sets of factors in deciding employees' working attitudes and levels of performance, named motivation and hygiene factors. He stated that motivation factors are intrinsic factors that will increase employees' job satisfaction; while hygiene factors are extrinsic factors that prevent any employees' dissatisfaction. The theory pointed out that improving the environment in which the job is performed motivates employees to work better. Herzberg's theory concentrates on the importance of internal job factors as motivating forces for employees. He wanted to create the opportunity for employees to take part in planning, performing and evaluating their work. The content of the theory has been widely accepted as relevant in motivating employees to give their best in organizations. Further research has proved that the employee is more motivated by intrinsic factors as captured by Herzberg's motivator needs than anything else. There are however other schools of thought that share different opinion from Herzberg's. King (2005) sought to eradicate and evaluate five distinct versions of the Two-Factor theory. He concluded that two versions are invalid as they are not supported by any empirical studies. However, the Two-Factor Theory is said to be a truly outstanding specimen for it to last this long period of time without disapproval. It has been a great influence on the body knowledge about workplace motivation and performance. It has generated a great deal of further research by many scholars. It draws its thought from Maslow's famous Hierarchy of Needs Theory and human behaviour. However due to changes in organizational environment and the advancement in technology, it is necessary to develop new methods of analysis. This will provide new ways of conducting research and revaluating the results of existing findings.

***Empirical Study***

Nanzushi (2015) investigated the effect of workplace environment on employee performance in the mobile telecommunication firms in Nairobi City County. The target population was all the employees at Airtel Networks Kenya Limited, Safaricom Limited and Telkom Kenya Limited based at the headquarters. The total number was 250 from Airtel, 976 from Safaricom and 400 from Telkom. The sample size included a total of 164 employees. Descriptive research design was adopted for the study. The researcher used stratified random sampling technique in selecting the employees. The study used primary data collected by use of semi-structured questionnaire. Data were analysed using descriptive statistics that included frequency, mean scores, standard deviation and percentages. From the findings, the study concluded that work environmental factors that influence employee performance were physical environment factors, reward, management/leadership style, training and development, and work-life balance. The findings reveal that employees were not satisfied with the management style and promotions in their organizations. The study recommends that mobile telecommunications firms should set up more comprehensive reward systems, and change management style to transformational leadership style that is inclusive of all employees. The working conditions of employees should also be improved to motivate employees to work. The limitations of the study are that the researcher had limited time and resources to do a more comprehensive research across the country. The researcher recommends further studies to be carried out across the country for a broader perspective on the relationship between employee performance and work environment.

**Methodology**

The research design used in the study is survey design. Survey research design is designed to portray accurately the characteristics of particular individuals, situations, or groups. The researcher adopted both primary and secondary sources of data to collect information from the respondents. The study targeted the 150 management and staff of the selected manufacturing firms in Abia State namely; Seven up bottling Company, Aba and Tonimas Company Aba. Thus, the sample size of the study is derived statistically from Taro Yamane formula as follows:

$$\frac{N}{1+N(e)^2}$$

| | | | |
|---|---|---|---|
| Where: | N | = | population of the study |
| | $(e)^2$ | = | margin of error, i.e. 5% (0.05) |
| | n | = | sample size |
| | I | = | Constant |

$$n = \frac{N}{1+N(e)^2}\text{d}$$

$$n = \frac{150}{1+150(0.0025)}$$

$$n = \frac{150}{1 + 0.375}$$

$$n = \frac{150}{1.375}$$

$$n = 109$$

The main instruments used by researchers to collect data from the field fits the purpose of the study. The methods used in this study to gather data were a set of questionnaire. Various types of questionnaire include Open-ended questions and rating scale of 5-point Likert frame, such as: 5 (SA); 4 (A); 3 (UN); 2 (D); 1 (SD). The rating scale is easier to administer on a large group of respondents and therefore saves time. It is easier to score, tabulate and analyse and it is more objectively and reliably scored. By this technique, the respondents are only to tick the correct option to the question or statement according to their opinions.Validity is based on the view that a particular instrument measures what it is meant or purposes to measure. The content validity of the instruments was established by first submitting the prepared questionnaire on separate sheets to the leading scholars in the researchers' academic Department, for their comments. Test– retest approach was adopted to ensure reliability of the instrument, with Cronbach Alpha co-efficient results. Thus, 40 copies of questionnaire were administered to the sampled/selected respondents, who are employees in the selected firms. Quantitative data are analysed using descriptive analysis in form of percentages and frequency table. To test the hypotheses of the study Multiple Regression model is used to test for relationship between the independent variables and the dependent variable.

**Data Analysis and Results**

**Table 1: Return of Questionnaire**

| Firms | Distributed Questionnaire | Returned Questionnaire | Questionnaire Lost | (%) Retrieved | (%) Lost |
|---|---|---|---|---|---|
| Seven up Bottling Company | 61 | 51 | 10 | 46.8 | 9.2 |
| Tonimas Company | 48 | 39 | 9 | 35.8 | 8.2 |
| **Total** | **109** | **90** | **19** | **82.6** | **17.4** |

**Source:** Field Data

In Table 1, a total of 109 questionnaire were administered; 19 questionnaire were lost, representing 17.4%, and 90 were realized. This translates to a response rate of 82.6%. The findings are then presented in the same order as the research questions.

**Table 2: Analysis of the factors militating against workplace management**

| **Statements** | **SA** | **A** | **N** | **D** | **SD** | **MEAN** |
|---|---|---|---|---|---|---|
| Ineffective communication | 62 | 23 | 5 | - - | - - | 4.6 |
| Shifting of co-workers | 75 | 15 | - - | - - | - - | 4.8 |
| Pressure from managers | 72 | 10 | 8 | - - | - - | 4.7 |
| Unclear goals and objectives | 77 | 11 | 2 | - - | - - | 4.8 |
| Poor supervision | 72 | 10 | 8 | - - | - - | 4.7 |

**Source: Field Data**

The Table 2 shows the factors militating against workplace management in selected manufacturing firms in Abia State, Nigeria. Majority of the respondents with the highest mean scores of 4.8, 4.8, 4.7, 4.7 and 4.6 strongly agreed on Employee self-service options, Time and Attendance Tracking, Managing absence and Poor supervision. This enhances understandable on why many managers face numerous challenges in the work place. Managers must also coordinate employee schedules, oversee project planning and handle client relations. They must stay abreast of changes to employment law and ensure a safe and productive workplace management.

***Test of Hypothesis***

**Table 3: Model Summary**

| Model | R | R Square | Adjusted R square | Std Error | t- value | P –value |
|---|---|---|---|---|---|---|
| 1 | .401 | .628 | .608 | .024 | 1.458 | .009,.001, |

**Source:** Field Data

The results in Table 3 show the regression of poor communication and technology innovation on workplace management. The computed R-square = 0.628; this means that Poor communication and technology innovation explain 62.8% of influences on workplace management while 37.2% is explained by the other factors. Regarding the parameters, computed t-value = 1.458 with p-value = .009 and .001 respectively (< .05 significance level). This shows poor communication and technology innovation have significant effect on workplace management. We therefore reject the null hypothesis and accept the alternative hypothesis, which holds otherwise. It implies that poor communication and technology and innovation are the factors militating against workplace management in the selected manufacturing firms in Abia State, Nigeria.

**Conclusion and Recommendations**

The study focused on the effect of workplace management on organizational growth using selected manufacturing firms in Abia State, Nigeria. Managers need to understand the various ways in which workplace change affects workers and their performance or productivity. The more this knowledge is applied to the workplace, the more an organization will derive benefits from its investment. It is with this approach that the study found out that poor communication and technology and innovation are the major factors militating against workplace management in the selected manufacturing firms in Abia State, Nigeria. The study recommends that managers should coordinate employee schedules, oversee project planning and handle client relations efficiently and effectively. They should stay abreast of changes to employment law and ensure safe and productive workplace environment in the management of the organizations.

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# Effect of Financial Development on Employment Rate in Nigeria

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***Abstract***

This study examines the co-integrating relationship between financial development and employment rate in Nigeria in line with Goal 8 of the sustainable development goals (SDGs), employing the ARDL technique and annualized time-series data from 1999-2019. Earlier studies conducted reported mix results using diverse measures of financial development and methodology to examine the macroeconomic variables that are positively (negatively) correlated with employment (unemployment). Findings show a positive and statistically significant co-integrating relationship between financial development and employment rate. The findings support the Phillips curve of an inverse nexus between inflation rate and unemployment rate and contravene Okun's law of a negative relationship between real GDP and unemployment rate. Unemployment rate and real GDP are positively co-integrated. The study recommends proper supervision and regulation of the operational and business activities of financial institutions to enhance employment generation and economic growth.

***Keywords:*** *Financial Development Indicators, Unemployment Rate, ARDL*

## Introduction

This study is situated in Goal 8 of the sustainable development goals (SDGs), which is to promote sustained and inclusive economic growth, full employment, productive and decent work for all by 2030. It focuses exclusively on employment as one of the central macroeconomic objectives of the government. The realization of this goal, occasionally, is challenging in most countries, particularly in emerging business and economic climate like Nigeria. The integration of emerging and developed economies through globalization and the 2007-2009 global financial crises indisputably had consequences on their economies. The effect of this crisis and the subsequent recession have led to a geometric decrease in output in most countries of Japan (−31%), Korea (−26%), Russia (−16%), Brazil (−15%), Italy (−14%), and Germany (−12%). Unemployment globally stood above 200 million for the first time and could increase by more than 50 million as the global crisis intensifies in construction, real estate, financial services, and the auto sector, according International Labour Organisation (ILO) Report (2009). Before the crisis, Nigeria's unemployment rate stood at 9.24% in 2002, 9.04% in 2004, and 8.8% in 2006; while rural unemployment was at (25.6%) and urban unemployment (17.1%), based reports from the National Bureau of Statistics (2007). Empirical contributions from Schäfer and Steiner (2014); Fernandes and Ferreira (2016); Dromel, Kolakez and Lehmann (2010) acknowledges the capacity of financial sector development to reduce unemployment rate through the banking sector *private sector credit development* and financial intermediation.

Effective financial sector development improves resources availability, accessibility and allocation to drive inclusive economic growth through production, and employment generation (Cherif & Dreger, 2016). Financial development is measured by the stock market and banking sector development (Bencivenga & Smith, 1991; Bui, 2019). Dromel *et al.* (2010) contend that the doggedness of the unemployment rate could considerably be lower through private sector credit for innovation, investment and production~~s~~. Bank credit to the informal economy has the capacity not only to reduce unemployment but also a high rate of poverty in Nigeria and other developing countries accounting for 54.0% employment rate in 2013, 73.7% in 2016 and 78.0% in 2019 (Ibrahim & Aliero, 2012; Udo, Akpan, Abner, Idogen & Ndubuaku, 2019; Ajakaiye, Jerome, Nabena & Alaba, 2016). The 2015-2017 economic and financial recession in Nigeria resulted in decline in public sector jobs creation by 37.2% and 8.8% in 2013 to 29.9% and 0.0% respectively in 2016, on the contrary increasing the informal sector jobs creation by 73.7%. Persistence unemployment in Nigeria has become a major socio-economic challenge, due to the slow pace of job creation, over labour force growth. Despite an average annual growth of 9.9% year on year from economic and financial expansion in 2010-2017, job creation within the periods stood at 1.9%, lower than the labour force growth of 3.9%. Unemployment rate is a reflection of underemployment, increasing geometrically from 13.1% in 2000 to 24.3% in 2014, 28.6% in 2017 and 32.0% in 2019. There is a huge gap between economic and financial development responsiveness to the employment rate in Nigeria. Ajaikaye *et al*., (2016) examined the nexus between growth and employment in Nigeria. The findings reveal high unemployment between 2005-2014 due to low employment generation, especially in the manufacturing, financial, and service sectors. Emerging market financial systems are characterised by the triple problem of smallness: small transaction, small financial institution, and small marked size instigating persistence unemployment (Ibrahim & Aliero, 2012).

Contemporary studies on financial development focus on the banking sector employment rate, others on stock market perspective. The stock market provides mid-term and long-term capital for investment which significantly influences the employment rate, production, business and operational activities of firms. Similarly, earlier studies of Ngoc Bui (2020); Shkumbin (2017); Evoh and Agu (2015); Filmer and Fox, (2014); Townsend, Benfica, Prasann, and Lee, (2017); Allen, Howard, Jamison, Jayne, Kondo, Snyder, and Yeboah (2016); Beck and Levine (2004); and others focused on firms and cross-country studies ignoring specific country realities. Beck and Levine (2004) opined that cross-country studies cannot account for specific-country-stages of development and heterogeneous factors inherent in them. Al-Awad and Harb (2005); Chuah and Thai (2004) substantiated the claims noting that cross-country investigations are profound to model nations and may not explain the economic and financial dynamics in another nation. A specific-country study would be more rigorous in clarifying the causal relationship. This study examines the effect of financial development on employment rate in Nigeria. The broad objective of this study is to examine the financial development - employment rate nexus in Nigeria, from 1999-2019. The hypothesis is:

*$H_0$: Financial development does not significantly impact on the employment rate in Nigeria.*

**Literature Review**

Financial industry development embraces the banking sector and the stock market development geared to enhancing the competitive prowess of the sectors in the global market, employment and safety of the business and economic climate. The nexus between the financial sector and economic growth in modern times breeds economic and financial argument emanating from the global crisis; to the 2015-2017 economic and financial recession in Nigeria. Schumpeter (1911) proposed the *supply-led growth* of financial development influencing economic growth through financial intermediation and private sector credit in the real sectors. The finding was upheld by Pagano (1993); King and Levine (1993); Hurlin and Venet, (2008); Ndubuisi, (2017); Fosu (2013) in 28 African countries; Mhadhbi (2014) in 27 medium-income countries from 1970 to 2012; and Sunde (2013) in Namibia. Herwartz and Walle (2014) observed supply-led growth in high-income economies than in low-income economies, in the 73 countries examined between 1975 and 2011. On the contrary, Robinson (1952) argued that economic growth influences financial development through GDP *per capita* growth rate proposing the *demand-led growth model*. The finding was substantiated by Kennedy and Nourzad (2016); Muhammad and Umer, (2010); Abubakar and Gani (2013), among others. Patrick (1966) proposed the *stages of development model* arguing that financial development influences growth at the primary stage of economic expansion and declines as the economy expands for economic growth to influence financial development.

Similarly, contemporary empirical findings of Kar, Nazlıoğlu and Ağır (2011) in the Middle East and North Africa (MENA) Countries and Grassa and Gazdar (2014) in the Gulf Cooperation Council (GCC) support the Casino model of *neutrality*. Financial development is inevitable in the integration of emerging and developed markets but does not necessarily lead to economic growth and development (Udo, Akpan, Abner, Idogen & Ndubuaku, 2019). Ehigiamusoe, Lean and Badeeb (2017); Udo, Akpan, Abner, Idogen and Ndubuaku, (2019); Nkoro and Uko (2013); among others supported the *supply-led growth and demand-led growth models* in their respective studies. The nexus was argued under the *supply-led growth and demand-led growth models*. Alternatively, it was represented by Patrick (1966) as *finance led-growth and growth led-finance models* along with the Casino model of neutrality. Despite the lack of homogeneity in the empirical literature and findings, scholars, on the other hand, upheld the existence of a relationship between financial development and economic growth. The nexus between financial development and employment was first discussed in the 1960s by Arthur Okun proposing Okun's law to examine statistically the relationship between unemployment and economic growth rate. According to Okun's law, real gross domestic product (RGDP) of 2% and gross national product (GNP) of 3% reduce the unemployment rate by 1% (Misini & Badivuku-Pantina, 2017). The Phillips curve proposes that unemployment and inflation are inversely (negatively) related. Empirical studies on the correlation between financial development and employment after the global crisis and the 2015-2017 recession in Nigeria are scanty both in developed and emerging economies. Studies conducted by Acemoglu (2001) in Europe; Campello Graham and Harvey (2010) in United States, Europe and Asia; Benmelech Bergman and Seru (2011) in Spain; examine financial development on employment from the financial constraints perspective. Campello *et al*. (2010) argued that firms experiencing complexities in accessing credit facilities will downsize their labour forces. Chodorow-Reich (2014); Greenstone, Mas and Nguyen (2014); Giroud and Mueller (2015) opined that downsizing is inevitable in highly indebted firms when financial crisis materializes.

Bentolila, Jansen and Jiménez (2017) authenticated the findings in Spain from 2006-2010, on high indebtedness and unproductive use of credit facilities resulting in unprofitability and labour force downsizing. Financial development on employment depends on whether capital and labour are complementary or substitute in the production process. Where capital and labour are substitutes, firms may substitute capital for labour by investing in more capital-intensive equipment while intensifying unemployment (Pagano & Pica, 2012). Holmes and Maghrebi (2016) argued that a unit increase stock market development increases the employment rate. Stock market development denotes future economic activity. Employment is sensitive to financial constraints, private sector bank credit and financial intermediation significantly impact on employment (Benmelech *et al*. (2011). Credit market imperfection increases unemployment (Dromel, Kolakez & Lehmann 2010). Borsi (2016) observed that a decline in private sector credit instigate unemployment. A unit increase in market concentration and rigid market regulation increases unemployment (Kim, Chen & Lin, 2018). Bayar (2016); Shabbir, Anwar, Hussain and Imran (2012); Ogbeide, Kanwanye and Kadiri (2016); Borsi, (2016) *et al*. (2018); Greenstone *et al*. (2014) in the United States; Dromel *et al.* (2010) in 19 OECD countries over the period 1982- 2003 reported a negative relationship using the generalized least square estimation method allowing for heteroscedastic errors.

***Empirical Studies***

The global crisis and the recession witnessed in the period 2015-2017 propelled scholarly interest on the effect of financial development on employment, globally and in Nigeria.

**Table 1: Summary of Empirical Studies**

| Author | Objective | Scope | Methodology | Findings |
|---|---|---|---|---|
| Toan Ngoc Bui (2020) | Financial development on Employment | 6 ASEAN countries | Generalized Method of Moment (GMM) | Mix results positive impact with private sector credit and a negative impact on the stock market |
| Aliero, Ibrahim and Shuaibu (2013) | Financial development of unemployment | Nigeria | Auto-Regressive Distributed Lag (ARDL) Bound Testing technique | Positive |
| Pagano and Pica (2011) | Financial development of employment | Developed and developing countries from 1970-2003 | Panel Regression | In developed countries positive and negative in non-OECD countries. |
| Shabbir, et, al (2012) | Financial sector development on unemployment | Pakistan from 1973-2007 | Auto-Regressive Distributed Lag (ARDL) bound testing technique | Negative |
| Shkumbin (2017) | Economic growth on unemployment | Kosovo 2004-2014 | Linear Regression | Positive |
| Bayar (2016) | Financial sector on unemployment | Emerging Market Economies. | GMM | Negative |
| Ogbeide et al (2016); | Financial development of employment | Nigeria | Linear Regression | Negative |
| Borsi (2016) | Financial development on the employment rate | Trabajo | Linear Regression | Negative |

Given the inconclusiveness in the extant studies, it is vital to investigate, in a robust manner, the effect of financial development on the employment rate in Nigeria.

**Methodology**

The study employs the *ex-post facto* research design to examine the co-integrating relationship using the Autoregressive Distributed Lag Model (ARDL), and Error Correction Model (ECM), as the major techniques of analysis. The datasets are secondary, sourced from the Central Bank of Nigeria (CBN) Statistical bulletins, National Bureau of Statistics, International Financial Statistics and World Development Indicators from 1999-2019. The underlying assumption of the ARDL developed by Pesaran, Shin and Smith (2001) is that all variables are integrated of order I (1) and Levels I (0).

***Variables***

1. Inflation rate: Implicit price deflator ratio accounts for inflation reflecting the changes in the prices of goods and services. Calculated as GDP at current basic prices divided by GDP at constant basic prices.
2. Employment Rate: Measured by high unemployment reflecting job losses and *vice versa*.
3. Banking sector development: Measures financial sector stability and development through private sector credit.
4. Bank lending-deposit spread: Measures financial efficiency
5. Stock market capitalization: Measures stock market development
6. M3GDP: Measures the volume of money in circulation.
7. Real GDP: GDP at constant basic prices calculated as GDP at market prices less indirect taxes net of subsidies.

The inclusion of the inflation rate through the implicit price deflator in the model is based on theoretical underpinning. The Phillips curve proposes that unemployment and inflation are inversely (negatively) related. Similarly, Okun's law predicts an inverse relationship between real GPD and the unemployment rate. Thus it is expected that an increase in real GDP will reduce unemployment. The baseline long-run model equation is estimated thus:

$$UNEMt = \beta_0 + \beta_1 INFLt + \beta_2 PSCEt + \beta_3 BANLt + \beta_4 STMCt + \beta_5 M3GDPt + \beta_6 RGDPt + ut \ \ldots. \ (1)$$

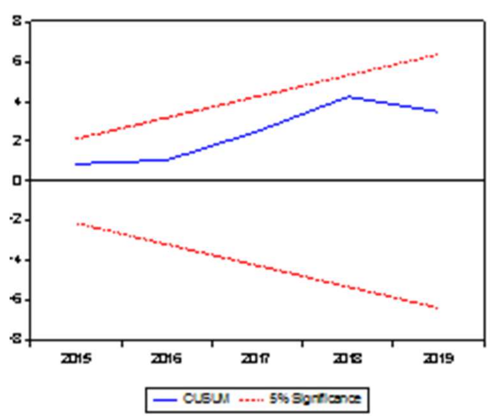
Where:

UNEM = Unemployment; INFL = inflation rate; PSCE = Private sector credit proxy for the financial sector; BANL= Bank lending-deposit spread, proxy for financial efficiency; STMC =

Stock market capitalization measures stock market development; M3GDP = Money supply ($M_3$) within the economy; and RGDP = Real gross domestic product.

***Model Specification***

Preceding the model estimation is an array of pre-test, scatter plot graph, descriptive statistics and unit root test with break test conducted on the variables. The Augmented Dickey-Fuller (ADF) (Dickey and Fuller, 1979); and the Phillips–Peron (PP) are conducted to confirm the stationarity properties of the datasets for a meaningful analysis. The Cumulative Sum of Recursive Residuals (CUSUM) and the Cumulative Sum of Squares of Recursive Residuals (CUSUMQ) in Figures 1 and 2 are also conducted to confirm the model stability of the long-run coefficients for the regressors at the 5% level of significance.



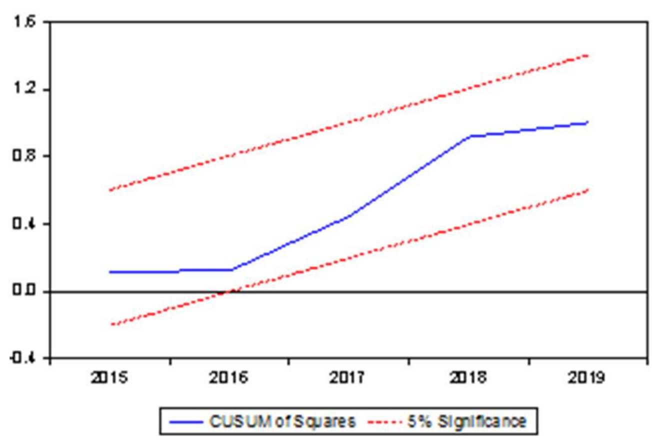




**Figure 1:** Plot of Cumulative Sum of Recursive Residuals

**Figure 2:** Plot of Cumulative Sum of Squares of Recursive Residuals

**Source:** Author's Computation.

If the plots lie within lower and the upper bounds at 5% range of significance level, the null hypothesis states that the coefficients in the error correction models (ECM) are stable and cannot be rejected; if otherwise, the null hypothesis of the constancy of the coefficients is rejected. From Figures 1 and 2, it can be deduced that both the plots of CUSUM and CUSUMQ statistics stay within the critical boundaries, thus, the null hypothesis is not rejected.

***Scatter Plot Graph***

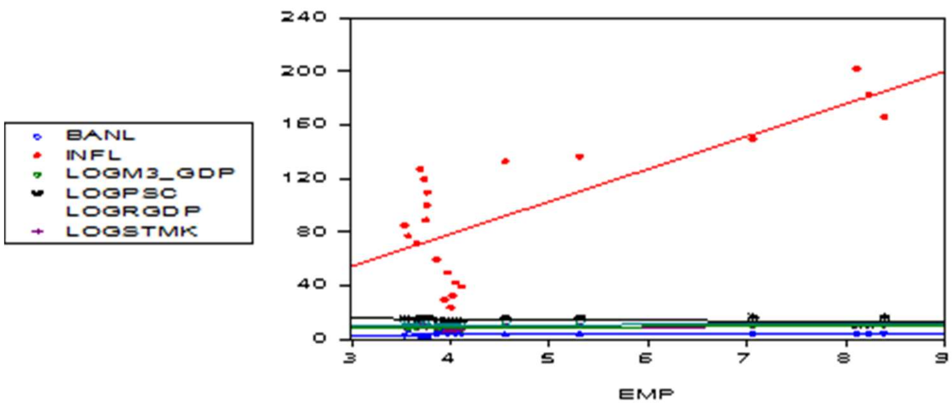



**Figure 3: Scatter Plot between Financial Development and Employment**
**Source:** Author's Computation

The scatter plot in Figure 3 shows a negative relationship between INFL and EMP rate as proposed by the Phillips curve and Okun's law. On the other hand, M3_GDP, PSC, RGDP, STMK and BANL show a positive relationship with EMP.

***Pre-Test***

The basic descriptive statistics as contained in Table 2 discloses the fundamental properties of the series under study.

**Table 2: Basic Descriptive Statistics of the Variables**

| | LOGRGDP | LOGPSC | LOGM3_GDP | LOGSTMK | INFL | EMP | BANL |
|---|---|---|---|---|---|---|---|
| Mean | 10.73568 | 14.72773 | 8.811927 | 8.622420 | 96.31819 | 4.724286 | 3.565390 |
| Median | 10.81690 | 15.38843 | 9.178592 | 9.202128 | 88.82677 | 3.980000 | 3.747500 |
| Std. Dev. | 0.390482 | 1.943429 | 1.277050 | 1.420434 | 52.82045 | 1.663928 | 1.119708 |
| Skewness | -0.502973 | -1.215519 | -0.401357 | -0.796225 | 0.347492 | 1.476313 | -0.153269 |
| Kurtosis | 1.898220 | 3.744683 | 1.782621 | 2.208336 | 2.091680 | 3.466457 | 2.494279 |

**Source:** Author's Computation.

The descriptive statistics of the variables comprise the mean, median, standard deviation, skewness and kurtosis. Dispersion in the series is measured by the standard deviation. The skewness is a reflection of the degree of departure or symmetry and kurtosis the degree of peakedness of the series.

**Table 3: Unit Root Test Result**

| Variables | ADF | Critical Value @ 5% | Order of integration | Structural BreakPoint | PP | Critical Value | Order of integration @ 5% | P-Value |
|---|---|---|---|---|---|---|---|---|
| BANL | -6.132 | -3.673 | I(1) | 2015 | -6.126 | -3.673 | I(1) | 0.000 |
| EMP | -5.450 | -2.840 | I(1) | 2013 | -5.260 | -3.673 | I(1) | 0.000 |
| INFL | -3.148 | -1.906 | I(0) | 2015 | -8.415 | -1.959 | I(0) | 0.000 |
| LogM3_GDP | -5.891 | -3.568 | I(0) | 2008 | -6.069 | -3.029 | I(0) | 0.000 |
| LogPSC | -4.866 | -2.673 | I(1) | 2017 | -4.871 | -3.673 | I(1) | 0.000 |
| LogRGDP | -7.268 | -3.850 | I(0) | 2010 | -4.302 | -1.959 | I(0) | 0.000 |
| LogSTMK | -5.040 | -3.673 | 1(1) | 2007 | -4.256 | -2.045 | 1(1) | 0.000 |

**Source:** Author's Computation.

The Unit root test results of the structural break, trend and intercept are presented in Table 3. The variables are integrated of order I (1) and level I (0). The PP unit root test results confirm the ADF results. The combination of me (1) and me (0) according to Pesaran, Shin and Smith, (2001) provide theoretical support for the adoption of Autoregressive distributed lag (ARDL) to test for the cointegrating relationship. The structural breaks account for economic changes traceable to the global crisis, and the 2015-2017 recession in Nigeria. The stock market in 2007 recorded a negative performance during the global crisis, M3_GDP same in 2008 and RGDP same towards the end of the global crisis in 2010. The unemployment rate in 2013 slightly decreased after the rebased in GDP from USD 270 billion to USD 510 billion. The increase of 90% was credited to the telecommunication sector, movies, retail and employment rate in these sectors was not captured or underreported. In 2015 bank lending-deposit spread, inflation rate and bank credit to private sectors were negatively affected resulting in a near-collapse of the private sector.

**The ARDL Bound Test Model Expression**

$$\Delta UNEM_{qt} = \alpha_0 + \sum_{i=1}^{p} \alpha_i \Delta UNEM_{qt-i} + \sum_{i=0}^{p} b_i \Delta L_n INFL_{qt-2} + \sum_{i=0}^{p} c_i \Delta L_n PSCE_{qt-3} + \sum_{i=0}^{p} d_i \Delta L_n BANL_{qt-4} + \sum_{i=0}^{p} e_i \Delta L_n STMC_{qt-5} + \sum_{i=0}^{p} b_i \Delta L_n M3GDP_{qt-6} + \sum_{i=0}^{p} b_i \Delta L_n RGDP_{qt-7} + \delta_1 UNEM_{qt-1} + \delta_2 L_n INFL_{qt-2} + \delta_3 L_n PSCE_{qt-3} + \delta_4 I_n BANL_{qt-4} + \delta_5 I_n STMC_{qt-5} + \delta_6 I_n M3GDP_{qt-6} + \delta_7 I_n M3GDP_{qt-7} + \mu_{qt} \text{.........................................} (2).$$

Where: $\Delta$ = first difference operator.
The parameters $\alpha 1 - \alpha 7$ = short-run relationship parameters.
The parameters $\beta 1 - \beta 7$ = long-run relationship parameters.
All other variables are as defined above.

**Decision Rule:**
*$H_0$:* $\beta 1 = \beta 2 = \beta 3 = \beta 4 = \beta 5 = \beta 6 = \beta 7 = 0$ *i.e. there is no co-integration among these variables.*
*$H_1$:* $\beta 1 \neq \beta 2 \neq \beta 3 \neq \beta 4 \neq \beta 5 \neq \beta 6 \neq \beta 7 \neq 0$ *i.e. there is co-integration among these variables.*

The *F* test determines whether there is a long-run relationship between the variables:

a. If the calculated value of F-statistic is greater than the upper critical bound (UCB) value, there is a long-run relationship.
b. If the calculated F-statistic value is smaller than the lower critical bound (LCB) value, there is no long-run relationship.
c. if the computed F-statistic value falls within the range of upper bound and lowers bound the result is inconclusive.

**Data Analysis and Results**

**Table 4: The ARDL Result**

| Variable | Coefficient | Std. Error | t-Statistic | Prob.* |
|---|---|---|---|---|
| LOGRGDP(-1) | 1.063442 | 0.211774 | 5.021598 | 0.0024 |
| LOGRGDP(-2) | -0.844752 | 0.343343 | -2.460374 | 0.0491 |
| LOGPSC | 0.016914 | 0.007638 | 2.214580 | 0.0687 |
| LOGPSC(-1) | 0.009262 | 0.005876 | 1.576124 | 0.1661 |
| LOGM3_GDP | -0.183794 | 0.068605 | -2.679023 | 0.0366 |
| LOGM3_GDP(-1) | 0.216998 | 0.043192 | 5.023983 | 0.0024 |
| LOGSTMK | 0.018754 | 0.013672 | 1.371750 | 0.2192 |
| LOGSTMK(-1) | 0.029529 | 0.019914 | 1.482778 | 0.1887 |
| INFL | 0.007387 | 0.002739 | 2.697351 | 0.0357 |
| INFL(-1) | -0.003559 | 0.001937 | -1.837160 | 0.1158 |
| EMP | -0.029158 | 0.011620 | -2.509220 | 0.0460 |
| BANL | 0.013077 | 0.011865 | 1.102134 | 0.3126 |
| C | 6.999789 | 1.766268 | 3.963039 | 0.0074 |
| Other Parameter Estimate | | | | |
| $R^2$ | 0.99 | Prob-Value | 0.0000 | |
| F-statistic | 1034.352 | Durbin-Watson stat | 2.43811 | |

Source: Author's Computation.

From the ARDL result in Table 4, $R^2$ is 0.99, measuring the goodness of the model, showing that the exogenous variables are jointly responsible for 99% variation in the endogenous variable. By implication, there is an explained variation of 99% and an unexplained variation of 1%. Looking at the exogenous variable of interest INFL, an inverse relationship exists between unemployment and the rate of inflation. Every 1% increase in the rate of inflation produces a 73.87% decrease in employment rate in Nigeria. The Durbin Watson statistics (DW) value of 2.438 shows no evidence of first-order serial autocorrelation AR (1). By the rule, if the DW statistics is approximately or equal to 2, it is evidence against the existence of first-order serial correlation. The overall regression is statistically significant as the F-statistic (1034.352), with its associated p-value of 0.0000, shows that the results can be used for meaningful analysis.

### *Cointegration and ARDL-ECM Results*

The long-run relationship amongst the variables in the general model was examined using the ARDL bounds testing procedure. The results of the Bounds F-test are reported in Table 5:

**Table 5: Bounds F-Test for Cointegration**

| Selected Model | (2,1,1,1,1,0,1) | | |
|---|---|---|---|
| Dependent Variable | Function | F- Statistics | K |
| EMP | UNEM = INFL, PSCE, BANL, STMC, RGDP M3GDP, | 8.9687 | 6 |
| Critical Value Bounds | | | |
| Significance level | | Lower Bounds I (0) | Upper Bounds I (1) |
| 10 per cent | | 1.99 | 2.94 |
| 5 per cent | | 2.27 | 3.28*** |
| 1 per cent | | 2.88 | 3.99 |

**Source:** Author's Computation. *Note: *** denotes significance at the 5%*

The F-test results show a long-run relationship between UNEM, INFL, PSCE, BANL, STMC, M3GDP, and RGDP. The estimation of the ARDL model was done with the aid of the Akaike Information Criterion to choose the optimal lag model of (2,1,1,1,1,0,0). The long-run coefficients are reported in Table 5. The short-run is reported in Table 6:

**Table 6: Error Correction Model (ECM)**

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| D(LOGPSC) | 0.016914 | 0.002128 | 7.949856 | 0.0002 |
| D(LOGM3_GDP) | -0.183794 | 0.024669 | -7.450385 | 0.0003 |
| D(LOGSTMK) | 0.018754 | 0.006873 | 2.728709 | 0.0342 |
| D(INFL) | 0.007387 | 0.000671 | 11.00620 | 0.0000 |
| CointEq(-1)* | -0.781311 | 0.062664 | -12.46829 | 0.0000 |
| Other Parameter Estimate | | | | |
| $R^2$ | 0.95 | Durbin-Watson stat | 2.438 | |

**Source:** Author's Computation.

### *Test of Hypothesis*

This hypothesis is tested using the bounds F-Test for co-integration and error correction (ECM) models of ARDL from Tables 5 and 6. The coefficient of the co-integrating relationship between financial development and employment rate in Nigeria shows a positive and statistical significant long-run relationship. The computed *F*-statistic (8.968) is higher than the upper critical bound at a p-value of 5%. The *F*-statistic result rejects the null hypothesis, of no co-integration. The result validates the findings of Aliero, Ibrahim and Shuaibu (2013) in Nigeria, and Shkumbin (2017) in Kosovo, Pagano and Pica (2011) in developing countries. The error correction model in table 6 shows the speed of convergence or adjustment from short-run disequilibrium towards the long-run equilibrium. The ECM coefficient of (-0.781) and the p-value (0.000) indicate that whenever disequilibria occur in the economy peradventure due to financial sector shocks at about 32%, such disequilibria are corrected for in the next periods. The convergent periods towards the long-run equilibrium are however low as it will take an average of 2-7 years for the convergence to take place. Raifu, Aminu and Adeniyi, (2019) noted that the slow speed of convergence towards the long-run equilibrium could be accredited to the sluggish response to macroeconomic policies formulated to address either internal or external shocks that might have caused the economic distortions in most emerging countries, particularly Nigeria. The ARDL results presented in Table 4 show the symmetric effects of financial development indicators on the employment rate.

Banking sector development and financial efficiency of credit to the private sector and bank lending-deposit spread have a positive effect on employment rate reducing the unemployment rate. A unit increase in credit to the private sector and bank lending-deposit spread increase employment rate by 55% and 20% respectively ceteris paribus. Aleiro *et al*. (2013) and Çiftçioğlu and Bein (2017) found that financial development reduces unemployment and increases employment rate substantiating the findings of this study.

On the contrary, Dromel *et al* (2010), Shabbir *et al*. (2012), and Borsi (2016) found that financial sector development of credit to the private sector and bank lending-deposit spread worsen unemployment. M3GDP have a negative and non-significant impact on employment. A unit decrease inM3GDP, decreases employment rate by 18.37%. Inflation rate negatively impacts on employment rate by 73.87%. These findings follow a priori expectation rooted in the Phillips curve hypothesis stipulating an inverse nexus between inflation rate and unemployment rate.

The findings on real GDP and unemployment rate contravene the a priori expectation as propounded by Arthur Okun in 1962 stating a negative relationship between economic growth and unemployment. Real GDP exhibits a positive impact on the unemployment rate in the study as a result of the economic and financial policy reforms after the global crisis, and the 2015-2017 recession in Nigeria. The reforms did not halt the skyrocketing rate of unemployment as the unemployment rate continues to rise despite an impressive economic recovery and growth. Ajakaiye *et al*. (2016) described such growth as jobless growth.

**Conclusion and Recommendations**

Over the decades, developed and emerging economies specifically Nigeria have experienced some sorts of economic growth, without corresponding employment generation. The poor rate of employment generation specifically in Nigeria could be traceable to the economic and financial crisis. Scholars, on the other hand, argue that financial development aggravates unemployment rate, while others, however, argue that financial development generate employment by stimulating economic growth through credit to the private sector, and bank lending-deposit spread. These arguments are examined in Nigeria to ascertain whether financial development aggravates unemployment rate.

Different measures of financial development such as financial depth (credit to the private sector), financial efficiency, (bank lending-deposit spread and stock market capitalization) and economic growth (real GDP, M3GDP) and inflation as well as Bounds F-Test for Co-integration were used to examine the effect on unemployment rate in the short-run and the long-run. Our findings show that financial development has the potential to reduce the unemployment rate in Nigeria in the short-run irrespective of the measures of financial development. Financial efficiency and financial stability are statistically significant along with stock market development and economic growth. Inflation rate exhibit a negative impact on unemployment. This means there is a long-run relationship among the variables (financial development indicators, unemployment rate, inflation rate and real GDP). The impact of inflation rate on unemployment rate follows *a priori* expectation of negative and significant effects while the effects of real GDP on unemployment rate fail to follow *a priori* expectation, reporting a positive impact on the unemployment rate. This study recommends, among other things, policy framework to encourage deposit money banks and microfinance banks to function effectively as lenders to big and small firms respectively, better supervision and monitoring of their business and operational activities by regulators. The level of financial development in the country is still at low ebb compared with other emerging and developed financial systems. Furthermore, policies that would deepen the financial sector should be implemented.

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## APPENDIX

### Data from CBN

| Year | PSC | M3 GDP | STMK | GDPID | EMP | BANL | RGDP |
|---|---|---|---|---|---|---|---|
| 1999 | 449,054.30 | 628.95 | 300.00 | **23.64** | 4.01 | 5.33 | **22,449.41** |
| 2000 | 587,999.90 | 878.46 | 472.30 | **29.12** | 3.95 | 5.29 | **23,688.28** |
| 2001 | 844,486.20 | 1,269.32 | 662.50 | **32.19** | 4.03 | 5.49 | **25,267.54** |
| 2002 | 948,464.10 | 1,505.96 | 764.90 | **39.13** | 4.11 | 4.15 | **28,957.71** |
| 2003 | 1,203,199.00 | 1,952.92 | 1,359.30 | **41.95** | 4.06 | 4.11 | **31,709.45** |
| 2004 | 1,519,242.70 | 2,131.82 | 2,112.50 | **49.46** | 3.98 | 4.19 | **35,020.55** |
| 2005 | 1,991,146.42 | 2,637.91 | 2,900.06 | **59.43** | 3.87 | 3.83 | **37,474.95** |
| 2006 | 2,609,289.40 | 3,797.91 | 5,120.90 | **71.66** | 3.67 | 3.14 | **39,995.50** |
| 2007 | 4,820,695.70 | 5,127.40 | 13,181.69 | **76.87** | 3.58 | 3.545 | **42,922.41** |
| 2008 | 7,799,400.11 | 8,643.43 | 9,562.97 | **85.10** | 3.54 | 2.835105 | **46,012.52** |
| 2009 | 9,667,876.68 | 9,687.51 | 7,030.84 | **88.83** | 3.76 | 2.675833 | **49,856.10** |
| 2010 | 9,198,173.06 | 11,101.46 | 9,918.21 | **100.00** | 3.77 | 2.205476 | **54,612.26** |
| 2011 | 9,614,445.80 | 12,628.32 | 10,275.34 | **109.51** | 3.77 | 1.410541 | **57,511.04** |
| 2012 | 10,440,956.33 | 15,503.41 | 14,800.94 | **119.66** | 3.74 | 1.69865 | **59,929.89** |
| 2013 | 11,543,649.93 | 18,743.07 | 19,077.42 | **126.69** | 3.7 | 2.168625 | **63,218.72** |
| 2014 | 13,179,598.11 | 20,415.61 | 16,875.10 | **132.60** | 4.56 | 3.380674 | **67,152.79** |
| 2015 | 13,568,543.70 | 20,885.52 | 17,003.39 | **136.39** | 5.31 | 3.582187 | **69,023.93** |
| 2016 | 16,500,150.26 | 24,259.00 | 16,185.73 | **149.40** | 7.06 | 3.7475 | **67,931.24** |
| 2017 | 16,193,858.35 | 28,604.47 | 21,128.90 | **166.02** | 8.39 | 4.13 | **68,490.98** |
| 2018 | 22,521.95 | 29,774.43 | 21,904.04 | **183.00** | 8.24 | 4.072901 | **69,799.94** |
| 2019 | 24,922.94 | 34,251.70 | 25,890.22 | **202.01** | 8.11 | 3.89 | **71,387.83** |

**Basic Descriptive Statistics of the Variables under Study**

| | LOGRGDP | LOGPSC | LOGM3_GDP | LOGSTMK | INFL | EMP | BANL |
|---|---|---|---|---|---|---|---|
| Mean | 10.73568 | 14.72773 | 8.811927 | 8.622420 | 96.31819 | 4.724286 | 3.565390 |
| Median | 10.81690 | 15.38843 | 9.178592 | 9.202128 | 88.82677 | 3.980000 | 3.747500 |
| Maximum | 11.17588 | 16.61888 | 10.44149 | 10.16162 | 202.0099 | 8.390000 | 5.490000 |
| Minimum | 10.01902 | 10.02225 | 6.444055 | 5.703782 | 23.64143 | 3.540000 | 1.410541 |
| Std. Dev. | 0.390482 | 1.943429 | 1.277050 | 1.420434 | 52.82045 | 1.663928 | 1.119708 |
| Skewness | -0.502973 | -1.215519 | -0.401357 | -0.796225 | 0.347492 | 1.476313 | -0.153269 |
| Kurtosis | 1.898220 | 3.744683 | 1.782621 | 2.208336 | 2.091680 | 3.466457 | 2.494279 |
| | | | | | | | |
| Jarque-Bera | 1.947616 | 5.656441 | 1.860567 | 2.767298 | 1.144542 | 7.818630 | 0.306004 |
| Probability | 0.377642 | 0.059118 | 0.394442 | 0.250662 | 0.564243 | 0.020054 | 0.858128 |
| | | | | | | | |
| Sum | 225.4493 | 309.2822 | 185.0505 | 181.0708 | 2022.682 | 99.21000 | 74.87318 |
| Sum Sq. Dev. | 3.049517 | 75.53829 | 32.61711 | 40.35265 | 55799.99 | 55.37311 | 25.07493 |
| | | | | | | | |
| Observations | 21 | 21 | 21 | 21 | 21 | 21 | 21 |

**ARDL Model Result**

Dependent Variable: LOGRGDP
Method: ARDL

Sample (adjusted): 2001 2019
Included observations: 19 after adjustments
Maximum dependent lags: 2 (Automatic selection)
Model selection method: Akaike info criterion (AIC)
Dynamic regressors (1 lag, automatic): LOGPSC LOGM3_GDP LOGSTMK INFL EMP BANL
Fixed regressors: C
Number of models evalulated: 128
Selected Model: ARDL(2, 1, 1, 1, 1, 0, 0)

| Variable | Coefficient | Std. Error | t-Statistic | Prob.* |
|---|---|---|---|---|
| LOGRGDP(-1) | 1.063442 | 0.211774 | 5.021598 | 0.0024 |
| LOGRGDP(-2) | -0.844752 | 0.343343 | -2.460374 | 0.0491 |
| LOGPSC | 0.016914 | 0.007638 | 2.214580 | 0.0687 |
| LOGPSC(-1) | 0.009262 | 0.005876 | 1.576124 | 0.1661 |
| LOGM3_GDP | -0.183794 | 0.068605 | -2.679023 | 0.0366 |
| LOGM3_GDP(-1) | 0.216998 | 0.043192 | 5.023983 | 0.0024 |
| LOGSTMK | 0.018754 | 0.013672 | 1.371750 | 0.2192 |
| LOGSTMK(-1) | 0.029529 | 0.019914 | 1.482778 | 0.1887 |
| INFL | -0.007387 | 0.002739 | -2.697351 | 0.0357 |
| INFL(-1) | -0.003559 | 0.001937 | -1.837160 | 0.1158 |
| EMP | -0.029158 | 0.011620 | -2.509220 | 0.0460 |
| BANL | 0.013077 | 0.011865 | 1.102134 | 0.3126 |
| C | 6.999789 | 1.766268 | 3.963039 | 0.0074 |

| | | | |
|---|---|---|---|
| R-squared | 0.999517 | Mean dependent var | 10.80829 |

| | | | |
|---|---|---|---|
| Adjusted R-squared | 0.998551 | S.D. dependent var | 0.333020 |
| S.E. of regression | 0.012679 | Akaike info criterion | -5.682034 |
| Sum squared resid | 0.000965 | Schwarz criterion | -5.035839 |
| Log likelihood | 66.97933 | Hannan-Quinn criter. | -5.572673 |
| F-statistic | 1034.352 | Durbin-Watson stat | 2.438311 |
| Prob(F-statistic) | 0.000000 | | |

*Note: p-values and any subsequent tests do not account for model selection.

ARDL Long Run Form and Bounds Test
Dependent Variable: D(LOGRGDP)
Selected Model: ARDL(2, 1, 1, 1, 1, 0, 0)
Case 2: Restricted Constant and No Trend

Sample: 1999 2019
Included observations: 19

Conditional Error Correction Regression

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 6.999789 | 1.766268 | 3.963039 | 0.0074 |
| LOGRGDP(-1)* | -0.781311 | 0.189123 | -4.131224 | 0.0061 |
| LOGPSC(-1) | 0.026176 | 0.012588 | 2.079446 | 0.0828 |
| LOGM3_GDP(-1) | 0.033204 | 0.058655 | 0.566084 | 0.5919 |
| LOGSTMK(-1) | 0.048283 | 0.019529 | 2.472379 | 0.0483 |
| INFL(-1) | 0.003828 | 0.002032 | 1.884017 | 0.1085 |
| EMP** | -0.029158 | 0.011620 | -2.509220 | 0.0460 |
| BANL** | 0.013077 | 0.011865 | 1.102134 | 0.3126 |
| D(LOGRGDP(-1)) | 0.844752 | 0.343343 | 2.460374 | 0.0491 |
| D(LOGPSC) | 0.016914 | 0.007638 | 2.214580 | 0.0687 |
| D(LOGM3_GDP) | -0.183794 | 0.068605 | -2.679023 | 0.0366 |
| D(LOGSTMK) | 0.018754 | 0.013672 | 1.371750 | 0.2192 |
| D(INFL) | 0.007387 | 0.002739 | 2.697351 | 0.0357 |

* p-value incompatible with t-Bounds distribution.
** Variable interpreted as Z = Z(-1) + D(Z).

Levels Equation
Case 2: Restricted Constant and No Trend

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| LOGPSC | 0.033503 | 0.009696 | 3.455385 | 0.0135 |
| LOGM3_GDP | 0.042498 | 0.078591 | 0.540744 | 0.6082 |
| LOGSTMK | 0.061797 | 0.019978 | 3.093246 | 0.0213 |
| INFL | 0.004900 | 0.001747 | 2.804415 | 0.0310 |
| EMP | -0.037319 | 0.012047 | -3.097905 | 0.0212 |
| BANL | 0.016737 | 0.014510 | 1.153488 | 0.2926 |
| C | 8.959035 | 0.377691 | 23.72055 | 0.0000 |

EC = LOGRGDP - (0.0335*LOGPSC + 0.0425*LOGM3_GDP + 0.0618 *LOGSTMK + 0.0049*INFL -0.0373*EMP + 0.0167*BANL + 8.9590 )

F-Bounds Test — Null Hypothesis: No levels relationship

| Test Statistic | Value | Signif. | I(0) | I(1) |
|---|---|---|---|---|
| | | | Asymptotic: n=1000 | |
| F-statistic | 8.968741 | 10% | 1.99 | 2.94 |
| K | 6 | 5% | 2.27 | 3.28 |
| | | 2.5% | 2.55 | 3.61 |
| | | 1% | 2.88 | 3.99 |
| | | | Finite Sample: n=35 | |
| Actual Sample Size | 19 | 10% | 2.254 | 3.388 |
| | | 5% | 2.685 | 3.96 |
| | | 1% | 3.713 | 5.326 |
| | | | Finite Sample: n=30 | |
| | | 10% | 2.334 | 3.515 |
| | | 5% | 2.794 | 4.148 |
| | | 1% | 3.976 | 5.691 |

ARDL Error Correction Regression
Dependent Variable: D(LOGRGDP)
Selected Model: ARDL(2, 1, 1, 1, 1, 0, 0)
Case 2: Restricted Constant and No Trend

Sample: 1999 2019
Included observations: 19

ECM Regression
Case 2: Restricted Constant and No Trend

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| D(LOGRGDP(-1)) | 0.844752 | 0.050237 | 16.81519 | 0.0000 |
| D(LOGPSC) | 0.016914 | 0.002128 | 7.949856 | 0.0002 |
| D(LOGM3_GDP) | -0.183794 | 0.024669 | -7.450385 | 0.0003 |
| D(LOGSTMK) | 0.018754 | 0.006873 | 2.728709 | 0.0342 |
| D(INFL) | 0.007387 | 0.000671 | 11.00620 | 0.0000 |
| CointEq(-1)* | -0.781311 | 0.062664 | -12.46829 | 0.0000 |

| | | | |
|---|---|---|---|
| R-squared | 0.958068 | Mean dependent var | 0.058060 |
| Adjusted R-squared | 0.941940 | S.D. dependent var | 0.035747 |
| S.E. of regression | 0.008614 | Akaike info criterion | -6.418877 |
| Sum squared resid | 0.000965 | Schwarz criterion | -6.120633 |
| Log likelihood | 66.97933 | Hannan-Quinn criter. | -6.368402 |
| Durbin-Watson stat | 2.438311 | | |

* p-value incompatible with t-Bounds distribution.

F-Bounds Test Null Hypothesis: No levels relationship

| Test Statistic | Value | Signif. | I(0) | I(1) |
|---|---|---|---|---|
| F-statistic | 8.968741 | 10% | 1.99 | 2.94 |
| K | 6 | 5% | 2.27 | 3.28 |
| | | 2.5% | 2.55 | 3.61 |
| | | 1% | 2.88 | 3.99 |

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# Effect of Firm Characteristics on Accounting Disclosure of Listed Oil and Gas Companies in Nigeria

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***Abstract***

*The study examined the effect of firm characteristics on accounting disclosure of Oil and Gas (O&G) companies listed in Nigerian. It made use of Ex-post Facto research design. Fourteen O&G companies listed in Nigeria made up the study population and using census approach all were studied. Data were collected from the annual reports of the O&G companies for seven years from 2012-2018, and analysed using multiple regression. The results showed a significant association between firm size and accounting disclosure. Similarly, auditor type showed a significant relationship with accounting disclosure. There was a positive but insignificant relationship between board Size and accounting disclosure, and leverage indicated an insignificant negative association with accounting disclosure. This study concludes that larger companies disclose more information than small firms because of a larger stakeholders' demand. The study recommends that companies should always engage auditors on the basis of ability to deliver timely accounting information in the right quantity and quality. Also, smaller companies should practise good corporate governance, to tap the benefits of higher disclosure in terms of higher reputation and aid to grow bigger.*

**Keywords:** *Accounting disclosures, Mandatory disclosure, Voluntary disclosure, Firm characteristics, Oil and gas.*

**Introduction**

Corporate accounting scandals such as Santo (BES) in year 2014, Toshiba in 2015 and Turing Pharmaceutical in year 2015, and previous cases such as African Petroleum, Afribank, Cadbury and Unilever, have created serious concerns in the minds of stakeholders about corporate disclosures. The basic features of these scandals involved suppressing losses, inflating income, understating expenses, classifying transactions wrongly, and non-disclosure of vital corporate information (Modugu & Eboigbe, 2017). These discreditable actions have resulted into increase demand for more transparency in accounting disclosures by firms from users of the information. Accounting disclosure is significant to stakeholders as it gives them the important information to aid them in sound economic decision making. Accounting disclosure is viewed from mandatory and voluntary perspectives. Mandatory disclosure is that which is required by regulatory authorities. It is imposed on firms by legal requirements. Thus, in this way, firms must disclose certain information in their annual reports. Reporting on the basis of International Financial Reporting Standards (IFRS), local standards of a nation or the requirements of Companies and Allied Matters Act in Nigeria, is mandatory disclosure. Voluntary disclosure is when corporations disclose information they consider necessary because of the benefits they feel can be derived from such disclosure and not necessary because it is required by any regulatory body. Thus, the publishing of sustainability reports, corporate social responsibility or environmental disclosure as standalone report or whether included in annual financial report is a matter of voluntary disclosure in Nigeria. The extent to which corporations may disclose information could be affected by the characteristics of the firm. The organization's resources and capabilities make up its characteristics (Oluwatayo, Amole, & Alagbe, 2018). These include the firm size, level of debt (leverage), how profitable the firm is, age of the firm, size of its board and type of auditors that audit the firm, among other characteristics

Users of financial information usually demand for information that is relevant, that can aid them in decision making. However, such detailed information is lacking in some aspects of the published information. This situation may be due to the characteristics of the companies that prepare the financial statements. Studies such as Kabir (2015); Modugu and Eboigbe (2017); Tsegba, Semberfan and Tyokosu (2017) were carried out in the context of Nigeria, to determine the association of firm characteristics on accounting disclosure. However, these studies were on accounting disclosures in the banking sector and other sectors, with limited studies on the O&G sector. The O&G industry occupies a strategic position in the Nigerian economy as it is the nation's major revenue and foreign exchange earner. It is the largest industry and mainstay of Nigerian economy as it contributes more to Gross Domestic Product (GDP) of the nation. The importance and unique characteristics of this industry suggest that the accounting disclosure of O&G sector of Nigeria should be robust enough to provide stakeholders with adequate published information. It is against this back drop that this study investigates firm characteristics and accounting disclosure of the listed O&G firms in Nigeria, with specific focus on voluntary disclosure considering that it is not mandatory but very important, and that at least there had been some compliance with mandatory disclosure by companies.

The primary objective of this study is to examine firm characteristics and accounting disclosure of listed O&G companies in Nigeria. Specific objectives of the study are to:

i. Examine the effect firm size on accounting disclosure of listed O&G companies in Nigeria.
ii. Investigate the effect of auditor type on accounting disclosure of listed O&G companies in Nigeria.
iii. Examine the effect of leverage on accounting disclosure of listed O&G companies in Nigeria.
iv. Ascertain the effect of board size on accounting disclosure of listed O&G companies in Nigeria.

The following research questions are raised:

i. To what extent does firm size affect accounting disclosures of listed O&G companies in Nigeria?
ii. To what extent does auditor type affect accounting disclosures of listed O&G companies in Nigeria?
iii. To what extent does leverage affect accounting disclosures of listed O&G companies in Nigeria?
iv. To what extent does board size affect accounting disclosures of listed O&G companies in Nigeria?

The following hypotheses guide the study:

*$H0_{1:}$ Firm size has no significant effect on accounting disclosure of listed O&G companies in Nigeria.*

*$H0_{2:}$ Auditor type has no significant effect on accounting disclosure of listed O&G companies in Nigeria.*

*$H0_{3:}$ Leverage has no significant effect on accounting disclosure of listed O&G companies in Nigeria.*

*$H0_{4:}$ Board size has no significant effect on accounting disclosure of listed O&G companies in Nigeria.*

**Literature Review**

**Conceptual Review**

***Concept of Accounting Disclosures***

Accounting disclosure is all about the release of information that is already in the custody of company managers on the economic activities of the company to external parties (Kanodia, 2006). Prasad, Mubeen and Rajani (2020) explained that, by implication, disclosure entails publishing economic information pertaining to the company. The published information is expected to be of importance to users for informed decision making. Accounting disclosures could be made mandatorily or voluntarily. Mandatory disclosure is reports presented in line with the statute or law that prescribed how the disclosure should be made. It is imposed by regulatory authorities who prescribed the elements of information to be disclosed (Popoval *et al.*, 2013). Voluntary disclosure is the publication of accounting information not mandatorily required to be disclosed. It is disclosure where no provision is made for enforcement of the disclosure rules (Abadi & Janani, 2013).

***Firm Characteristics***

Firm characteristics are the attributes which a company owns that shape its performance. It is those particular features that gives a company its competitive edge and contribute towards the changes on company value (Shuaibu, Ali & Amin, 2019). The frim characteristics of interest in the study are discussed below:

*Firm Size*

Size is an indication of growth, strength and resource base of an organization. A company's size may be represented by its total assets or its level of share capitalization. The size of a firm may be small or large and this may turn to have effect on disclosure. Due to cost of disclosure, small firms may not afford disclosure (Soyemia & Olawalea, 2019), but larger firms may garner more resources to achieve disclosure. Aluwong and Fodio (2019) opined that larger companies may be more willing to disclose information especially about the environmental to please their numerous stakeholders.

*Leverage*

Leverage is the level at which a company uses debt to finance its operations. Some companies are highly geared while some are not. Creditors rely greatly on financial statements of companies (Aluwong & Fodio, 2019). Therefore, a company that uses debt may be required by its creditors to disclose greater information to be more informed about the level of profitability of the company and to be assured that the debt will be recovered. Bako (2017) stated, however, that firms with high degree of leverage may be considered risky and, thus, shy away from disclosure so that investors will not run away from investing in them due to adverse effect of risk.

*Auditor Type*

External auditors have a greater role to play in accounting disclosure efforts of the companies they audit. Their skills, competencies and calibre of personnel and experience count in delivering quality and timely annual reports and accounts of companies. Ikpor, Awa and Ozor (2016) stated that statutory auditors that are of greater repute may have more experience, expertise and resourcefulness to handle audit task.

*Board Size*

Board size is the number of members on the board of directorship of a company. Gambo, Bello and Rimamshung (2018) stated that the number of executive and non- executive makes up the board size of an entity. The board of any company is very significant in the issue of disclosure. It is expected that a company level of disclosure may be higher if the board size is made up of more outside directors (Rouf, 2011).

**Theoretical Review**

Relevant baseline theories include Agency theory, stakeholder theory and signalling theory. This study, therefore, is anchored to Agency theory, stakeholder theory, and Signalling theory; hence they are highlighted below:

***Agency Theory***

This theory was developed by Jensen and Meckling in 1976. The theory attempts a description of a relationship where the principal or shareholder appoints the agent or manager to manage the corporation on his behalf. Thus, in the shareholders and managers relationship, there may be conflict of interest, resulting in information asymmetry. Leung and Ilsever (2013) opined that one way of reducing agency relationship problems is to curtail the information asymmetry between managers and shareholders. This may be achievable through the disclosure of accurate and reliable information in the annual reports to investors by the managers.

***Signalling Theory***

The signalling theory was introduced by Spence in 1974. The theory explain the managers' attitudes to the disclosure of more information to the market so as to signal their behaviour of the best practice as a means to promote transparency, with the intention to attract more investment (Entwistle, 1999). Bae, Masud and Kim (2018) stated that the theory is focused mainly on managers' intention to disclose information and receive signals from the public, stakeholders and the market. This is to show that they are better than their competitors for the purpose of attracting investments. One issue with signalling theory is that the receiver of the signal may be in doubt about the truthfulness of the information received as exemplified by recent corporate accounting scandals.

***Stakeholder Theory***

The Stakeholders theory was fully developed by Freeman in 1984. The theory is about the fact that an organization is made up of stakeholders both within (internal stakeholders) and outside (external stakeholders) of the organization; all of which should be treated equally. Stakeholder theory posits that the company need the support and approval of stakeholders for it to continue to exist, and that the activities of the company may have to be adjusted for it to gain the approval of stakeholders (Omran & El-Galfy, 2014). Thus, the organization is required to provide all the stakeholders with information on its performance. However, stakeholders also do have varying interests which may be at variance with that of the organization; therefore, bringing these interests together is not very easy.

***Empirical Studies***

Nurudeen, Ahnda and Shalli (2018) studied corporate characteristics and voluntary disclosure with the focus on financial service companies listed in Nigeria covering 2014-2018. The study used correlational research design. Data was obtained from annually published financial reports of the 13 financial services companies listed. Panel regression was used in data analysis; and results were that profitability and leverage had negative and significant effect on the voluntary disclosure while firm size had positively and significantly affected voluntary disclosure. Modugu and Eboigbe (2017) carried out a post IFRS adoption study on corporate attributes and corporate disclosure level of listed companies on the Nigeria Stock Exchange (NSE). The study was for a period of five years (2012-2014), involving 189 companies. Using descriptive statistics and ordinal least square regression (OLS) analysis, the results were that statutory disclosure appreciated; however, voluntary disclosure remained relatively low. Tsegba *et al*. (2017) studied firm characteristics and compliance with IFRS with specific focus on financial services companies listed in Nigeria. Secondary data were used and analysis technique was multiple regression and Wilcoxon Rank Sum Test for two independent samples. The results revealed that compliance with IFRS was high, firm size and auditor type were insignificantly related to IFRS compliance; leverage and internationality were also insignificantly related to IFRS compliance. Tijjani and Garko (2015) studied firm characteristics impact on voluntary disclosure with specific focus on listed industrial goods companies in Nigeria. The period was from 2004 to 2013. Thirteen companies were sampled out of twenty-three and data obtained from annual reports of the companies. Data analysis was based on multiple regression and the results indicated that firm size and leverage had significant association with voluntary disclosure.

Kabir (2015) conducted a study to investigate firm characteristics and IFRS 8 disclosure in the transition period in Nigeria. Sample of 97 listed companies using a disclosure index was used. It revealed that the some firm attributes like industry type, firm size, auditor type Company listing age were related to some level of disclosure. Mishari and Abdullah (2014) studied relationship between firm-specific characteristics and corporate financial disclosure among Kuwait Stock Exchange (KSE)-listed firms. Corporate disclosure among all KSE-listed firms in 2010 was measured using a self-constructed disclosure index. The regression analysis was made and the results revealed that older, highly leveraged, larger, and profitable KSE-listed firms are associated with high levels of disclosures. Galani, Alexandridis and Stravropoulos (2011) studied the relationship between firm characteristics and corporate disclosure in Greece. Data were obtained in the 2009 annual reports of 43 Greek companies listed on the Athens stock exchange. Using a linear regression analysis, the results were that firm size was significantly positive with the level of disclosure while age of firm, profitability, liquidity and board composition were insignificant.

**Methodology**

This study adopted the *ex-post facto* research design; fourteen (14) listed O&G firms in Nigeria as at 31st December, 2018 made up the population. Using census approach all the fourteen (14) companies were studied from 2012 to 2018. Secondary data were collected from the annual reports of the companies. Multiple regression analysis was used in analysing data.

The dependent variable was the Disclosures Compliance Index (DCI). This study adopts the dichotomous approach in which a value of 1 is assigned if the company discloses an item of information and 0 otherwise. The DCI is total disclosure score divided by maximum disclosure score for each company. Independent variables were measured as follows:

*Measurement of Variables*

Firm Size (FSIZE): as the log of total assets at year end.

Auditor Type (ADTYPE): using dichotomous approach, where it was firm within the big four, a value of 1 was given, otherwise a score of 0.

Firm leverage (FLEV): as total debt to total book value of equity.

Board Size (BSIZE): as the number of people on the board as at the end of the year.

*Model Specification*

The model for the study is:

$DCI_{it} = \beta_0 + \beta_1 FSIZE_{it} + \beta_2 ADTYPE_{it} + \beta_3 FLEV_{it} + \beta_4 BSIZE_{it} + \mu_{it}$... (i)

Where:

| | |
|---|---|
| DCI | = Disclosure Compliance Index |
| FSIZE | = Firm Size |
| ADTYPE | =Auditor type |
| LEV | = Leverage |
| BSIZE | = Board size |

| | | |
|---|---|---|
| I | = Number of firms use for the sample, |
| T | = the time period used for this work (Time coefficient) |
| $\beta_0$ | = Coefficient of parameter (intercept) |
| $\beta_i$ | = parameter estimates of FSIZE, ADTYPE ,FLEV and BSIZE |
| $\mu$ | = error term |

**Data Analysis and Results**

The results obtained are presented on Tables 1, 2, and 3:

***Descriptive Statistics***

**Table 1: Descriptive Statistics**

| Variable | N | MEAN | SD | MIN | MAX |
|---|---|---|---|---|---|
| DCI | 98 | .82 | .17 | .40 | .99 |
| AUDTYPE | 98 | .59 | .49 | 0 | 1 |
| FSIZE | 98 | $8.2 \times 10^{10}$ | $1.84 \times 10^{11}$ | .47 | $1.04 \times 10^{12}$ |
| LEV | 98 | 2.5 | 2.69 | .002 | 18.54 |
| BODSIZE | 98 | 8.0 | 2.65 | 3 | 14 |

**Source:** STATA Version 13 Output

On Table 1, the mean value for DCI is 0.82 while the standard deviation value is 0.17, implying that disclosure index among the sampled companies is high with minimal deviation which goes to show a high level of disclosure. On Auditor type, 59% of the companies use big 4 audit firms to audit their accounts whereas, 41% of the companies are audited by non-big 4 audit firms. On firm size, the average asset base of the companies is N82, 000,000,000 (N82 billion). The standard deviation shows very wide fluctuations among the firms showing how dispersed the companies are in terms of total asset base. The leverage ratio is low (2, 5), implying that the companies are not highly geared. Board size shows an average of 8 members on the board, with little deviation of 2.65.

***The Correlation Matrix***

**Table 2: Correlation Matrix**

| | DCI | AUDTYPE | FSIZE | LEV | BSIZE |
|---|---|---|---|---|---|
| DCI | 1.0000 | | | | |
| AUDTYPE | 0.4442 | 1.0000 | | | |
| FSIZE | 0.4942 | 0.1202 | 1.0000 | | |
| LEV | 0.2655 | 0.1655 | 0.4604 | 1.0000 | |
| BSIZE | 0.3845 | 0.2541 | 0.5071 | 0.3517 | 1.0000 |

**Source: Output from STATA, Version 13.**

The correlation matrix shows that the independent variables have low correlation amongst them (less than 75%), and this implies that the variables are not so correlated to the point of affecting the validity of the result.

***Regression Results***

The regression results of the study are presented below:

**Table 3: Regression Results**

| | Coef. | Std.Err | T | p>/t/ |
|---|---|---|---|---|
| Audtype | .1136 | .0259 | 4.38 | 0.000 |
| Fsize | .0563 | .0139 | 4.04 | 0.000 |
| Lev | --.0009 | .0051 | -0.18 | 0.857 |
| Bsize | .0047 | .0055 | 0.86 | 0.392 |
| Cons | .1587 | .1261 | 1.26 | 0.212 |
| $R^2$ | | | | 0.400 |
| Adj$R^2$ | | | | 0.372 |
| F-Value | | | | 14.64 |
| Prob>F | | | | 0.000 |

**Source:** STATA version 13 output.

Table 3 shows an $R^2$ value of 0.400, which represents coefficient of multiple determinations. It explains 40% of the total variation in the dependent variable (DCI) of the companies, where as 60% is explained by variables outside those used in the study. The F-statistic (14.64) and the probability of F (Prob.>F) indicates that the model is suitable for interpretation. The nature and extent of relationship between the variables (DCI and Audtype, Fsize, Lev and Bsize) are discussed below:

**Discussion of Findings**

An improvement of Auditor type towards the big 4 firms will improve disclosure by 0.1136. This implies that there is a positive effect of auditor type on disclosure of accounting information. The result is based on t-value of 4.38 and p-value of 0.000 which is less than 0.05. Thus, the null hypothesis is rejected and the alternative is accepted, that auditor type has significant effect on accounting disclosure. This is in line with the studies of Kabir (2015) who also found a significant association of auditor type with disclosure. This may likely be as a result of the ability of big 4 audit firms to deploy adequate personnel, skills and other resources that are needed to carry out the audit task more quickly and based on their wider experience may disclose information more timely. Also, firm size (total assets) has positive effect on disclosure as an increase in assets will have a 0.563 points increase on disclosure. The result shows a t value of 4.04 and p-value of 0.000 which is lower than 0.05. This implies that firm size has a significant and positive effect on accounting disclosure. This way, the null hypothesis is rejected and the alternative accepted; that there is significant effect of firm size on accounting disclosure.

This is in line with the studies of Tijjani and Garko (2015), Kabir (2015) and Galani *et al*. (2011) who all reported a positive and significant association of firm size with disclosure of accounting information. The large size puts companies at a advantage in terms of affording the cost of disclosure couple with the need to reach their large stakeholders; whereas small firms are caught up in the web of fear of competitors and meagre resources to cope with cost of disclosure.

The amount of debt a company has discourages disclosure. This is because a unit increase in leverage will have a negative (-0.009) effect on disclosure. The t value also shows a negative value of -0.18 and p-value is 0.857. This implies that leverage has a negative and insignificant effect on accounting disclosure among the O&G firms studied. Therefore, the null hypothesis is accepted that leverage has no significant effect on disclosure. It was stated earlier that the sample companies are not highly geared as such the issue of leverage is not on the front burner of these companies; hence the likelihood of leverage not having any significant effect on their operations including disclosure. The study is in line with Tsegba *et al.* (2017) who found a negative association between leverage and disclosure of information based on compliance with IFRS. Also Modugu and Eboigbe (2017) found a negative effect of leverage on disclosure in post IFRS adoption study of corporate attributes and level of firm disclosure. In their study, Mishari and Abdullah (2014) found that disclosure is associated with companies that are highly geared. The board size has positive effect on disclosure; as a unit change in board size is associated with 0.0047 changes in disclosure. However, t value is 0.86 and p-value is 0.3962, indicating that there is no significant effect of board size on accounting disclosure. Therefore, the null hypothesis is accepted that there is no significant effect of board size on disclosure of O&G companies listed in Nigeria. This is in line with Galani *et al*. (2011) who, in their study, also found an insignificant association between board size and disclosure.

**Conclusion and Recommendations**

It is concluded that auditor type plays a significant role in enhancing accounting disclosure by companies and that disclosure of accounting information is taken more seriously by large firms due to the importance they attached to this as a tool of enhancing their reputation and value. Highly geared companies are prone to higher disclosure of information than low geared companies and board size also matters in accounting disclosure to a reasonable level.

It is recommended that companies should always engage auditors on the basis of ability to deliver timely accounting information in the right quantity and quality, as required by stakeholders for their use. Also, smaller companies should practice good corporate governance, and take the issue of accounting disclosure seriously to be able to tap the benefits of higher disclosure in terms of a higher reputation which will aid them to grow bigger.

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**Selected Factors Influencing Tax Avoidance and Tax Evasion in Nigeria: A Case Study of Wukari, Taraba State**

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***Abstract***
*The purpose of this study is to evaluate some selected factors influencing tax avoidance and tax evasion in Nigeria with particular reference to Wukari, Taraba State. This study is carried out so as to determine whether corruption, low level of transparency and accountability, tax system unfairness and complexity have influence on tax avoidance and evasion in Nigeria. Descriptive statistics such as mean, standard deviation and percentages are used; as well as inferential statistics (that is, multiple regression), in the analysis of data. The results reveal that corruption, low level of transparency and accountability; tax system unfairness and tax system complexity have significant influence on tax avoidance and tax evasion in Nigeria. The study recommends that urgent steps be taken by public office holders in particular and government representatives in general to live above board in terms of transparency and accountability; there should be zero tolerance for corruption within and outside the tax system; and anyone found guilty of corruption should be made to face the wrath of the law.*

***Keywords:*** *Tax avoidance, Tax evasion, Corruption, Transparency and Accountability, Tax system complexity.*

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**Introduction**

Tax has been variously described in the literature. Tax connotes a charge imposed by government authority upon property, individuals, or transactions to raise money for public purposes (Akinyomi & Tasie, 2011; Enahoro & Olabisi, 2012). However, one of the greatest difficulties facing the Nigeria Tax System as well as Africa is the problem of tax evasion and avoidance. Tax evasion is an intentional and unlawful non-fulfilment of tax liabilities. In contrast, Tax avoidance is a conscious act of reducing one's taxes by lawful means (Bhuiyan, 2012). These *twin devils* have created a great gulf between actual and potential revenue. Tax evasion and avoidance no doubt denies any government the tax revenue due to her, which results in a gap between potential and actual tax collections. This state of affairs obtains at various tiers of government in the country, hindering the generation of revenue to enable the government effectively and efficiently execute all developmental projects highlighted in their budgets. In addition, successive Nigeria governments have not made adequate and deliberate efforts towards informing the tax evaders and avoiders on the need for tax payment. All attentions have been directed on the revenue from oil sector while areas like taxes and agriculture, which are supposed to be generating a lot of revenue to the country, are deliberately disregarded. In view of the challenges of inadequate revenue to support various developmental programme and increased tax evasion and avoidance in Taraba State, the study is conducted to identify key factors influencing tax evasion and avoidance in Wukari.

Simser (2008) observed that tax evasion could be said to occur when individuals or organizations intentionally fail to conform to their tax responsibility. Tax evasion and avoidance are not new phenomena as they have been in existence long time ago, however, they have a new dimension in recent times (Eschborn, 2010). According to Asada (2010), tax avoidance and evasion represents some of the perplexing challenges facing the Nigerian economy. Wherever and whenever authorities decide to levy taxes, individuals and firms try to avoid making payments. Meanwhile, taxation is one of the means of revenue generation to meet the need of its citizens (Abiola & Asiweh, 2012). The resulting tax revenue loss may cause serious damage to the proper performance of the public sector, threatening its capability to finance public expenditure (Chiumya, 2006). Therefore, it is imperative to ascertain selected factors influencing tax evasion and avoidance, so as to develop strategies to address them.

**Literature Review**

Tax evasion is a term used when efforts of individuals and organizations are directed towards illegal reduction of tax liabilities. Alm and Martinez-Vazquez (2001) defines it as a deliberate and willing practice of not disclosing complete taxable income in order to pay lesser tax. This implies that tax evasion is considered illegal in the eyes of the law. It entails the taxpayers deliberately misrepresenting and concealing the income, profits, gained than usually earned or overstating deductions. Kiabel and Nwokah (2009) posit that tax evasion is the fraudulent, dishonest, intentional concealment of facts and figures in order to avoid or reduce tax payable. Tax avoidance involves an active means to reduce or remove altogether the payment of tax (Soyode & Kajola, 2006). It is usually done through taking advantage of loopholes in the tax laws without actually breaking it. It is also the legal utilization of the tax regime to one's own advantage so as to reduce the amount of tax that is payable using means that are acceptable by the law. According to Kiabel and Nwokah (2009), it is a word used to show various means which have been adopted with the purpose of saving tax and therefore securing the tax payers earnings from greater liability which would have otherwise been incurred. Basically, it is simply going through the tax provisions and taking total advantage for the benefit of the tax payer, for instance, where a tax payer invests in qualifying expenditure so that he may be granted capital allowances.

Neck, Wachter and Schneider (2011) investigated how the possibility of tax avoidance affects the extent of tax evasion and hence the shadow economy. Using comparative statistics, the study revealed that the complexity of the tax system affects participation in the shadow economy negatively. Furthermore, the study demonstrated that a decrease in the maximum acceptable working hours in the official economy increases the labour supply in the shadow economy. Similarly, Abiola and Asiweh (2012) carried out a survey on Nigeria tax administration and it revealed that management and organizational approach in the implementation of tax policy in Nigeria is weak. This weakness is traceable to the use of poor tools, insufficient staffing of the tax collection organization, poor financial support, bad access road to the heart of the rural areas, and poor enlightenment. The result additionally supported the fact that tax payers are not enlightened on the need to meet up with their financial obligations. Alabede, Ariffin and Idris (2011) investigated individual tax payers' attitude and compliance behaviour in Nigeria. The study recognized that a number of factors may be responsible for low compliance in income tax administration in Nigeria.

However tax payers' attitude was identified as one factor that plays a significant role in influencing tax compliance behaviour. Data for the study were collected through a survey of individual taxpayers' opinion, meanwhile the analysis was carried out using moderated multiple regression. The result of the study indicated that taxpayers attitude towards tax evasion is positively related to compliance behaviour. Furthermore, the study also revealed that taxpayers risk preference has strong negative moderating effect impact on the relationship between attitude towards tax evasion and compliance behaviour.

In general, citizens expect some kind of service or benefit in return for the taxes paid. If the government fails to provide basic public goods and services or provides them insufficiently, citizens may not be willing to pay taxes and tax evasion and avoidance would be the consequence (Lieberman, 2002; Pashev, 2005; Everest-Phillips, 2008; Brautigam *et al.*, 2008). Some studies suggest that high tax rates foster tax evasion. The intuition is that high tax rates increase the tax burden and, hence, lower the disposable income of taxpayer (Chipeta, 2002). However, the level of the tax rate may not be the only factor influencing people's decision about paying taxes. In fact, the structure of the overall tax system has an impact as well. For instance, the tax rate on corporate profits is relatively low, but individuals are facing high tax rate on their personal income, they may perceive their personal tax burden as unfair and choose to declare only a part of their personal income. Similarly, large companies can often more easily take advantage of tax loop holes, thereby contributing to the perceived unfairness of the system. Tax rates and the overall structure of the tax system, therefore, have a significant effect on the disposition to evade and avoid taxes.

Lack of transparency and accountability in the use of public funds contributes to public distrust both with respect to the tax system as well as the government. This, in turn, increases the willingness to evade taxes (Kirchler, Muelbacher, Kastlunger & Wahl, 2007). If due to high levels of corruption, citizens cannot be certain whether their paid taxes are used to finance public goods and services, their willingness to pay suffers and it becomes more likely that they evade their tax liabilities. A taxpayer might consider evading taxes if the cost of bribing an auditor is lower than the potential benefit from tax evasion (Popoola, 2009). According to Pasher (2005), it also borders on the failure of government to provide basic infrastructures which are supposed to be funded by tax being collected may aggravate tax evasion. Lack of transparency and accountability in the use of public fund has the effect of building public distrust both in the tax system as well as the government.

Hence, this is believed to increase tax evasion (Pasher, 2005). Literature also revealed a link between tax evasion and corruption. According to Acconcia, D'Amato and Martina (2003) noted that the level of corruption and tax evasion depends on such factors as the wealth of the taxpayer and the wage of the tax officer. Alligham and Sandmo (2012) conducted an empirical study of tax evasion as a positive connection between tax rates and evasion. The findings are consistent with the discoveries of Soyode (2006) who distinguished the causes of tax evasion. Firstly, he noted that the rates at which taxpayers are generally taxed have effects on tax evasion. He observed that the higher the tax rate, the higher the probability for the taxpayers to evade, as this expands their disposable income. Besides, the likelihood of being detected in the wake of dodging taxes likewise impacts on the choice of a taxpayer; whether connected to the level at which strict laws are generally implemented (Soyode, 2006).

***Theoretical Framework***

According to Eftekhari (2009), taxation has always been an issue for the government and taxpayers from the early years of civilization. The issue of taxation has generated a lot of controversy and severe political conflicts over time. According to its importance, several economic theories have been proposed to run an effective tax system. Taxes are generally classified on the basis of three (3) different theories which include:

i. Ability to pay principle,
ii. Benefit approach, and
iii. Equal distribution principle.

However, this research is centred on *Equity Theory*. This theory focuses on determining whether the distribution of resources is fair to both parties. Equity is measured by comparing the ratio of contributions (costs) and benefits (rewards) for each person. Equity theory was first developed in 1996 by J. Stacy Adams, a behavioural psychologist, who asserted that employees seek to maintain equity between the inputs that they bring to a job and the outcomes that they receive from it against the perceived inputs and outcomes of others (Adams, 1999). Equity entails that each taxpayer should contribute his/her *fair share* to the cost of government. Equity involves two (2) aspects, the treatment of people in like and unlike circumstances.

- *Horizontal Equity:* This implies a case of treatment of similarly placed persons. It allows for equal treatment of equals. Horizontal equity is the concept that individuals with identical abilities to pay should be assigned identical tax burdens.

- *Vertical Equity:* The treatment of unlike circumstances implies that people in dissimilar circumstances should be subjected to dissimilar treatment. That is persons, who are better-off should pay more than others. It is in a sense unequal treatment of persons who are unequal. For realization of vertical equity, same objective scale should be evolved according to which the wellbeing of different persons might be measured. Hence, the problem of vertical entity is one stage more complex to realize. The basis of the concept of vertical entity is that tax burdens should rise with ability to pay. However, the concept of equity in tax burden distribution is very difficult to implement and not easy to administer. Although income appears to be a useful yardstick for comparison of differences in ability to pay taxpayers, it becomes even difficult, when two individuals have identical incomes.

**Methodology**

The study adopts a survey research design. Four (4) - point rating scaled questionnaire, such as Strongly Agree (SA), Agree (A) Disagree (D) and Strongly Disagree (SD), was used to collect data through the administration of 308 copies of questionnaire. However, only 230 copies, which represent 75%, were returned while 78 which represent 25% were not returned. In addition, the analysis of data was carried out with the aid of the Statistical Package for Social Sciences (SPSS). Test was also done to ensure the validity and reliability of findings.

**Table 1: Distribution of Questionnaire**

| Items | Number of questionnaire | Percentage |
|---|---|---|
| Number returned | 230 | 75% |
| Number unreturned | 78 | 25% |
| **Total** | **308** | **100%** |

**Source:** Field Survey (2020).

The Table 2 below presents information about the background of the respondents which indicates that 65% of the respondents are male while the others are female. Similarly about 76% of the respondents are young, 23% are middle age and 1% is old; 45% of the respondents are single, 52% are married and 3% are divorced; 57% of the respondents are civil servants while the others are self-employed; 71% of the respondents obtained qualification from tertiary institutions, 16% have other qualifications and 13% are SSCE holders; and finally, 62% of the respondents are average income earners, 32% are low income earners and 6% are high income earners.

**Table 2: Profile of Respondents (n=230)**

| Sex: | Respondents | Percentage |
|---|---|---|
| Male | 149 | 64.8% |
| Female | 81 | 35.2% |
| Age: | | |
| Young age | 174 | 75.7% |
| Middle age | 53 | 23.0% |
| Old age | 3 | 1.3% |
| Marital status: | | |
| Single | 103 | 44.8% |
| Married | 119 | 51.7% |
| Divorced | 8 | 3.5% |
| Occupation: | | |
| Civil servant | 131 | 57.0% |
| Self-employed | 99 | 43.0% |
| Academic qualification: | | |
| SSCE | 30 | 13.0% |
| Tertiary institution | 163 | 70.9% |
| Other qualification | 37 | 16.1% |
| Monthly income: | | |
| Low income earners | 74 | 32.1% |
| Average income earners | 143 | 62.2% |
| High income earners | 13 | 5.7% |

**Source:** Field Survey (2020).

Note: Young age (20-40years), Middle age (41-60years), Old age (Above 60years)
Low income earners (below N50,000), Middle income earners (N50, 000-N150,000), High income earners (above N150,000).

**Data Analysis and Results**

This depicts the result of analysis of the data collected from various respondents through the questionnaire administered. The data are analysed with the use of the Statistical Package for Social Sciences (SPSS). From the responses in Table 3 below, 31% strongly agree, 21% agree, 16% disagree and 32% agree with respect to research question 1. From the field survey, therefore, tax avoidance is not caused by multiple tax laws. Similarly, 16% strongly agree, 34% agree, 38% disagree and 13% strongly disagree with respect to research question 2. From the field survey, therefore, inequality in tax does not result to tax avoidance. With respect to research question 3, 16% strongly agree, 23% agree, 38% disagree and 23% disagree. From the survey, therefore, most of the respondents disagree that no one can be blamed for avoiding taxes. Finally, with respect to research question 4, 11% strongly agree, 27% agree, 33% disagree and 29% strongly disagree. From the field survey, therefore, most of the respondents disagree that punishments are not given to those that avoid taxes.

**Table 3: Descriptive statistics for Tax Avoidance**

| S/N | Items | SA | A | D | SD | Mean | Std. Dev. |
|---|---|---|---|---|---|---|---|
| 1 | Tax avoidance is caused by multiple tax laws. | 71<br>(31) | 48<br>(21) | 37<br>(16) | 74<br>(32) | 2.50 | 1.23 |
| 2 | Inequality in tax results to tax avoidance. | 36<br>(16) | 78<br>(34) | 87<br>(38) | 29<br>(13) | 2.52 | 0.90 |
| 3 | No one can be blamed for avoiding taxes. | 37<br>(16) | 52<br>(23) | 88<br>(38) | 53<br>(23) | 2.32 | 1.00 |
| 4 | Punishment are not given to those that avoid taxes | 25<br>(11) | 63<br>(27) | 76<br>(33) | 66<br>(29) | 2.20 | 0.98 |

**Source:** SPSS Result (2020)

Note: The figures in parenthesis are in percentage.

Key: SD =Strongly Agree, A=Agree, D=Disagree, SD=Strongly Disagree.

From the responses in Table 4, 29% strongly agree, 22% agree, 35% disagree and 14% strongly disagree with respect to research question 5. From the field survey, therefore, most of the respondents disagree that taxpayers evade taxes because there is no visible evidence of good governance. Similarly, 10% strongly agree, 32% agree, 34% disagree and 24% strongly disagree with respect to research question 6. From the field survey, therefore, most of the respondents disagree that tax evasion is ethical even if most of the money collected is spent wisely. With respect to research question 7, 15% strongly agree, 24% agree, 43% disagree and 18% strongly disagree. From the field survey, therefore, most of the respondents disagree that tax evasion is ethical if the probability of being caught is low. Finally, with respect to research question, 13% strongly agree, 24% agree, 34% disagree and 30% strongly disagree. From the field survey, therefore, most of the respondents disagree that high tax rates instigate tax evasion.

**Table 4: Descriptive Statistics for Tax Evasion**

| | Items | SA | A | D | SD | Mean | Std. Dev. |
|---|---|---|---|---|---|---|---|
| 5 | Tax payers evade taxes because there is no visible evidence of good governance. | 67<br>(29) | 51<br>(22) | 81<br>(35) | 31<br>(14) | 2.67 | 1.04 |
| 6 | Tax evasion is ethical even if most of the money collected is spent wisely. | 22<br>(10) | 73<br>(32) | 79<br>(34) | 56<br>(24) | 2.27 | 0.94 |
| 7 | Tax evasion is ethical if the probability of being caught is low. | 34<br>(15) | 56<br>(24) | 98<br>(43) | 42<br>(18) | 2.336 | 0.95 |
| 8 | High tax rates instigate tax evasion. | 30<br>(13) | 54<br>(24) | 78<br>(34) | 68<br>(30) | 2.24 | 1.20 |

**Source:** SPSS Result (2020).

Note: The figures in parenthesis are in percentage.

Key: SD =Strongly Agree, A=Agree, D=Disagree, SD=Strongly Disagree.

From the responses in Table 5, 33% strongly agree, 25% agree, 27% disagree and 15% strongly disagree with respect to research question 9. From the field survey, therefore, most respondents bribe government officials. Similarly, 20% strongly agree, 29% agree, 36% disagree and 15% strongly agree with respect to research question 10. From the field survey, therefore, corruption has no adverse effect on economic growth. With respect to research question 11, 14% strongly agree, 21% agree, 37% disagree and 27% strongly disagree. From the field survey, therefore, corruption is not as a result of monopoly of power vested on public officials. Finally, with respect to research question 12, 7% strongly agree, 28% agree, 39% disagree and 26% strongly disagree. From the field survey, therefore, high wages for bureaucrats does not reduce corruption.

**Table 5: Descriptive Statistics for Corruption**

| | Items | SA | A | SD | D | Mean | Std Dev. |
|---|---|---|---|---|---|---|---|
| 9 | Most people bribe government officials. | 77 | 57 | 62 | 34 | 2.90 | 2.32 |
| | | (33) | (25) | (27) | (15) | | |
| 10 | Corruption adversely affects economic growth. | 46 | 66 | 84 | 34 | 2.54 | 0.97 |
| | | (20) | (29) | (36) | (15) | | |
| 11. | Corruption is as a result of monopoly of power vested on public officials. | 33 | 48 | 86 | 63 | 2.22 | 1.00 |
| | | (14) | (21) | (37) | (27) | | |
| 12 | High wages for bureaucrats reduces corruption. | 15 | 64 | 89 | 62 | 2.14 | 0.89 |
| | | (7) | (28) | (39) | (26) | | |

**Source:** SPSS Result (2020).

From the response in Table 6, 19% strongly agree, 30% agree while 33% disagree and 18% strongly disagree with respect to research question 13. From the field survey, therefore, most respondents disagree that Nigeria government publishes financial report regularly. Similarly, 19% strongly agree, 29% agree, 36% disagree and 16% strongly disagree with respect to research question 14. From the field survey, therefore, most respondents disagree that more transparency and accountability is required in public spending.

With respect to research question 15, 5% strongly agree, 25% strongly disagree, 33% disagree and 27% strongly disagree. From the field survey, therefore, most people disagree that tax authorities are answerable to the general public. Conclusively, with respect to research question 16, 10% strongly agree, 17% agree, 40% disagree and 33% strongly disagree. From the field survey, therefore, most people disagree that tax authorities are transparent.

**Table 6: Descriptive Statistics for Transparency and Accountability**

| S/N | Items | SA | A | SD | D | Mean | Std Dev. |
|---|---|---|---|---|---|---|---|
| 13 | Nigeria government publishes financial report regularly. | 43 (19) | 70 (30) | 75 (33) | 42 (18) | 2.50 | 0.99 |
| 14 | Transparency and accountability is required in public spending. | 44 (19) | 67 (29) | 83 (36) | 36 (16) | 2.52 | 0.97 |
| 15 | Tax authorities are answerable to the general public. | 34 (15) | 58 (25) | 75 (33) | 63 (27) | 2.27 | 1.02 |
| 16 | Tax officials are transparent | 23 (10) | 38 (17) | 93 (40) | 76 (33) | 2.03 | 0.95 |

**Source:** SPSS Result (2020).
Note: The figures in parenthesis are in percentage.
Key: SA=Strongly Agree, A=Agree, D=Disagree, SD=Strongly Disagree.

From the response in Table 7, 25% strongly agree, 32% agree, 29% disagree and 14% strongly agree with respect to research question 17. From the field survey, therefore, most of the respondents agree that tax system complexity increases the size of tax gap. Similarly, with respect to research question 18, 10% strongly agree, 37% agree, 38% disagree and 14% strongly disagree. From the field survey, therefore, most of the respondents disagree that tax complexity contributes to the public perception that the tax law is unfair. With respect to research question 19, 14% strongly agree, 28% agree, 37% disagree and 21% strongly disagree. From the field survey, therefore, most of the respondents disagree that tax complexity increases the cost of tax administration. Finally, with respect to research question 20, 14% strongly agree, 32% agree, 34% disagree and 20% strongly agree. From the field survey, therefore, most of the respondents disagree that tax complexity may cause similarly situated taxpayers to pay different amount of tax.

**Table 7 Descriptive Statistics for Tax system complexity**

| S/N | Items | SA | A | SD | D | Mean | Std. Dev. |
|---|---|---|---|---|---|---|---|
| 17 | Tax complexity increases the size of tax gap. | 57 (25) | 73 (32) | 67 (29) | 33 (14) | 2.67 | 1.00 |
| 18 | Tax complexity contributes to the public perception that the tax law is unfair. | 24 (10) | 86 (37) | 87 (38) | 33 (14) | 2.44 | 0.86 |
| 19 | Tax complexity increases the cost of tax administration. | 33 (14) | 65 (28) | 84 (37) | 48 (21) | 2.36 | 0.97 |
| 20 | Tax complexity may cause similarly situated taxpayers to pay different amount of tax. | 33 (14) | 73 (32) | 79 (34) | 45 (20) | 2.41 | 0.96 |

**Source:** SPSS Result (2020).
Note: The figures in parenthesis are in bracket.
Key: SA=Strongly Agree, A=Agree, D=Disagree, SD=Strongly Disagree.

From the response in Table 8, 22% strongly agree, 31% agree, 30% disagree and 17% strongly disagree with respect to research question 21. From the field survey, therefore, most of the respondents agree that the present tax system benefits the rich and is unfair to the ordinary working man. Similarly, with respect to research question 22, 17% strongly agree, 26% agree, 39% disagree and 19% strongly disagree. From the field survey, therefore, most of the respondents disagree that fair treatment of taxpayers would enhance voluntary tax compliance. With respect to research question 23, 15% strongly agree, 27% agree, 37% disagree and 21% strongly disagree. From the field survey, therefore, most of the respondents disagree that taxes are levied on PAYE basis. Conclusively, with respect to research question 24, 13% strongly agree, 23% agree, 39% disagree and 26% strongly disagree. From the field survey, therefore, most of the respondents disagree that there is a correlation between fair and correct treatment of taxpayers and trust in the revenue body.

**Table 8: Descriptive Statistics Tax System Unfairness**

| | | A | A | D | SD | Mean | Std. Dev. |
|---|---|---|---|---|---|---|---|
| 21 | The present tax system benefits the rich and is unfair to the ordinary working man. | 51 (22) | 71 (31) | 70 (30) | 38 (17) | 2.59 | 1.01 |
| 22 | Fair treatment of taxpayers would enhance voluntary tax compliance. | 39 (17) | 59 (26) | 89 (39) | 43 (19) | 2.41 | 0.98 |
| 23 | Taxes are levied on PAYE basis. | 34 (15) | 63 (27) | 84 (37) | 49 (21) | 2.36 | 0.98 |
| 24 | There is a correlation between fair and correct treatment of tax payers and trust in the revenue body. | 29 (13) | 52 (23) | 89 (39) | 60 (26) | 2.22 | 0.97 |

**Source:** SPSS Result (2020)
Notes: The figures in parenthesis are in percentage.
Key: SD=Strongly Agree, A=Agree, D=Disagree, Strongly Disagree.

The result of regression analysis which determines the strength of the relationship between some selected factors influencing tax avoidance and tax evasion is shown in Tables 9 and 10. Table 9 shows that the model has F ratio 119.32 (P=000) and this indicates that the variables have significant ability to influence tax evasion in Nigeria. The result indicates that corruption has a positive relationship with tax evasion. This entails that the higher the corruption, the higher the rate of tax evasion; similarly, the lower the level of transparency and accountability, the higher the rate of tax evasion. It means that low level of transparency and accountability has a significant relationship with tax evasion. The result also indicates that tax complexity has a significant influence on tax evasion; implying that the higher the tax complexity, the higher the rate of tax evasion. Conclusively, higher tax system unfairness results to a higher rate of tax evasion. Furthermore, the model has $R^2$ .680 which is an indication that the selected factors combined together account for 68% of variance of the dependent variables; but a conservative estimate as provided by Adjusted $R^2$ indicates 67.4% of tax evasion.

**Table 9: Regression Result for Tax Evasion**

| Variables | Std. Error | Beta | T | Sig. |
|---|---|---|---|---|
| (Constant) | .110 | .938 | | .349 |
| Corruption | .043 | .158 | 2.984 | .003 |
| Transparency& Account. | .061 | .218 | 3.807 | .000 |
| Tax complexity | .066 | .249 | 3.930 | .000 |
| Tax unfairness | .063 | .320 | 5.134 | .000 |
| R Square | .680 | | | |
| Adjusted R2 | .674 | | | |
| F ratio | 119.32 (P=0.000) | | | |

**Source:** SPSS Result (2020).

The Table 10 indicates that the model has F ratio 80.30 (P=000) and this suggest that the variables have significant ability to influence tax avoidance in Nigeria. The result indicates that corruption has a positive relationship with tax avoidance. This entails that the higher the corruption, the higher the rate of tax avoidance; similarly, the lower the level of transparency and accountability; the higher the tax avoidance. It means that low level of transparency and accountability has a significant relationship with tax avoidance. The result also indicates that tax complexity has a significant influence on tax avoidance; implying that the higher the tax complexity, the higher the rate of tax avoidance. Conclusively, higher tax system unfairness results to a higher rate of tax avoidance. Furthermore, the model has $R^2$ .588 which is an indication that the selected factors combined together account for 59% of variance of the dependent variables; but a conservative estimate as provided by Adjusted $R^2$ indicates 58.1% of tax evasion.

**Table 10: Regression Result for Tax Avoidance**

| Variables | Std. Error | Beta | T | Sig. |
|---|---|---|---|---|
| (Constant) | .134 | .888 | | .375 |
| Corruption | .053 | .229 | 3.822 | .000 |
| Transparency& Account. | .075 | .208 | 3.202 | .002 |
| Tax complexity | .081 | .227 | 3.163 | .002 |
| Tax unfairness | .077 | .223 | 3.152 | .002 |
| R Square | | .680 | | |
| Adjusted R2 | | .674 | | |
| F ratio | | 119.32(P=000) | | |

Source: SPSS Result (2020).

## Discussion of Findings

From the result of the analysis carried out in this study; corruption, low level of transparency and accountability, tax system unfairness, tax system complexity which were some of the factors identified as positively and significantly related to tax avoidance and evasion in Nigeria. The results of this study show that high level of corruption, low level of transparency and accountability of public institutions, perception of unfairness and tax system complexity influence tax avoidance and evasion in Nigeria. This result is in line with that of Mauro (1995) that corruption is a major impediment to economic development. Slemrod (2003) emphasizes and provides evidence for the notion that tax evasion is affected by households distaste for illegal activity and by their perception of government performance. Tax evasion, in turn, influences corruption by limiting the inability to raise funds that may be diverted for private use. Similarly that of accountability is in line with the position of Davies (1999) that government should give stewardship of its affairs. Stakeholders expect the accruing revenue to be expended properly and pragmatically, in a well thought manner as well as in line with the ideals of strategic financial management (Agundu & Ogbole, 2014). Lack of transparency and accountability in the use of public fund has the effect of building public distrust both in the tax system as well as the government. Hence this is believed to increase the level of tax evasion. With regards to fairness, the result is in line with that of Kirchler and Hoelzl (2006) who argue that fair treatment of taxpayers and trustworthiness of tax authorities will enhance voluntarily compliance. Murphy (2004) shows in a study of accused tax avoiders that there is a correlation between fair and correct treatment of the taxpayer and trust in the revenue body.

## Conclusion and Recommendations

In the course of this research, a number of findings have been made based on factual data collected and analysed on some selected factors influencing tax avoidance and evasion in Nigeria, with particular reference to Wukari, Taraba State. This study investigated the factors which influences tax avoidance and evasion in Nigeria. The results of this study reveal that corruption has a significant influence on individual tax avoidance and evasion in Nigeria. Similarly, low level of transparency and accountability in public institutions has significant influence on individual tax avoidance and evasion in Nigeria. Also, tax system unfairness has significant influence on individual tax avoidance and evasion in Nigeria. Conclusively, tax system complexity has significant influence on individual tax avoidance and evasion in Nigeria. Tax avoidance and evasion usually result in revenue loss to government, which may cause serious damage to the proper performance of the public sector, threatening its capability to finance public expenditure. This study examined some selected factors that are influencing tax avoidance and evasion in Nigeria. The results of the analysis reveal that corruption, low level of transparency and accountability, tax system unfairness and tax system complexity significantly influence individual tax avoidance and evasion in Nigeria. Sequel to the findings of this study, it is recommended that urgent steps should be taken by public office holders in particular and government representatives in general to live above board when it comes to transparency and accountability; there should be zero tolerance for corruption within and outside the tax system; anyone found guilty of corruption should be made to face the wrath of the law; and there should be fair treatment of taxpayers and trustworthiness of tax authorities so as to enhance voluntary tax compliance. In addition, Nigeria government should endeavour to publish the nation's financial statement, showing its revenue and expenditure regularly (monthly basis, quarterly or annually); and high wages should be made available to bureaucrats so as to tame the tide of corruption.

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