

PERSONAL INCOME TAX: A PANACEA FOR SUSTAINABLE STATES GOVERNMENTS REVENUE GENERATION IN NIGERIAN ECONOMY

Awusa, Peter Ewa¹ and Ahmad, A. Abubakar²

¹awusapee@gmail.com ²aabubakar202@gmail.com

¹Department of Accountancy, Nogak Polytechnic, Ikom, Cross River State, Nigeria

²Department of Accountancy, Adamawa State University, Mubi, Adamawa State, Nigeria

Abstract

In Nigeria, states governments are facing financial crises as a result of reduction in global oil prices and economic recession; leaving the states governments with the option of adopting strategies to improve the revenue base of states through others sources of revenue to attain the desired development. This study assessed the contribution of Personal Income Tax to Revenue Generated in Cross River State from 2003 to 2012. To achieve the objectives of the study, primary and secondary data were collected from the Cross River State Internal Revenue Service (CRSIRS) and Office of the Accountant General of Cross River State. Descriptive statistics and Ordinary Least Square (OLS) regression analytical technique were utilized in the analyzed which shows; R^2 0.63 and DW 1.88. Granger Causality test and Augmented Dickey Fuller (ADF) unit root test were conducted to enhance the validation of the results. The results shows that personal income tax has significant impact on revenue generated in Cross River State and it has the capacity of been the major source of revenue in Cross River State. The study concludes that personal income tax is a source of revenue that can boost the state revenue base; as such there is a need for government to improve revenue generation through personal income tax. Therefore, the study recommends among others that government should expand personal income tax net thereby improving revenue generation through personal income tax and put in place palliative measures such as effective collaboration with stakeholders that will bring personal income tax evaders from the informal sector into the tax net.

Keywords: Personal Income Tax, Revenue Generation and Nigerian Economy

1. INTRODUCTION

The crash in global oil prices have led to the reduction of federal allocation to states. This has been the major concern to many states in Nigeria. States governments operations have been severely affected by inadequate funds. The attendant financial drought and crippling insolvency in many states has led to unprecedented pressure and severe challenges meeting workers' salaries obligation, increasing cost of governance and infrastructural development in many states in Nigeria. One of the major sources to generate revenue is by levying taxes on individuals or corporate entities. The increasing cost of running government has left various state governments in Nigeria with the option of formulating strategies to improve revenue base (Kiabel and Nwokah; 2009). According to Abubakar and Kaka (2011), revenue generation has assumed a very prominent position in Nigeria and the world at large over the years. This is because for any meaningful development to take place in terms of infrastructure, provision of social services, security of life and property of the citizenry, defense against external aggression and meeting the increasing cost of governance, more revenues have to be generated. Ishaq and Sani (2011) posit that the generation of revenue by every entity is an issue of paramount importance. This cuts across households, firms, states and nations. In essence, revenues to the state governments include; tax and non-tax income that accrues to the government, both internally and from Federation Account in order to finance its economic activities and protect its economy from external aggression (Ogba, 2009) as cited in Ajala and Aworemi (2013). States are considered to be economically viable when the states' are less dependent on federal allocation. As states strive to reduce their vulnerability to income uncertainties and the influence of resource providers, they have moved away from concentrating, dependence on a single revenue strategy (Ajala and Aworemi, 2013).

The monolithic nature of the Nigerian economy and the instability of international crude oil market in recent time due to the economic crunch have more than any other times exposed the vulnerability of the Nigerian economy to external influences. The solution to this problem lies in diversification of the revenue base to incorporate more non-oil sources (Abubakar and Kaka, 2011). According to Aguolu (2004) revenue accrues to the government through diverse sources. Though taxation may not be the most important source of revenue to the government in terms of the magnitude of revenue derivable from taxation, however, taxation is the most important source of revenue to the government, from the point of view of certainty and consistency. Various taxes are imposed by the public authorities of a state only on the identified tax payers for the purpose of contributing to the public funds; the main purpose being to finance Nigerian public expenditure. It was the

view of Popoola (2009) that Nigerian tax administration and practice be structured towards economic goal achievement since government budget for the year centers on the oil sector. Low productivity of the Nigerian tax system was attributed to deficiencies in the tax administration and collection system, complex legislations and apathy on the part of those outside the tax net were identified as some of the root causes (Abiola and Asiweh, 2012).

Internally generated revenue income accrues to the governments from revenue sources within the state; as a result of the state internal revenue generation effort as opposed to federal allocations from the Federation Account that does not match the increasing responsibilities of the State Governments. In order for the government to finance its economic activities, financial resources are required and these can be raised from different sources including personal income tax (Pay As You Earn and direct assessment), fines and fees, licenses, stamp duties, land registration and survey fees, rents of government properties, interest repayment/dividends and reimbursement refund. According to Yakubu (2013) one of the greatest challenges facing the Nigerian tax system is the problem of compliance, especially within the informal sector. Those working in the informal sector of Nigerian economy do not see the need to pay tax whereas they dominate the economy. To them, only civil servant should pay tax on their earnings and this amount to over flogging the willing horse. Besides, the activities of the strong union in the formal sector do not even pave way for a successful tax policy implementation in the formal sector (Ayodele, 2006). Though, it is assured that personal income tax is closely related to the pace of development and growth of the economy. It has been evident through the study of Oludunjoye and Olowolaju (2004), Azubike (2009) and Yakubu (2013) that this form of tax in Nigeria has remained the most unsatisfactory, disappointing and problematic of the taxes in the tax system today. This is in spite of the fact that tax reforms have of recent been a key element in economic reforms which the country had undergone. It is therefore felt that personal income taxation in Nigeria requires radical handling to ensure that a large chunk of the taxable population does not escape tax. The poor financial position of the states has been exacerbated by the general non-provision of federal grants. The constitution required that federal grants should be made available to assist states in distress and to address the problem of insufficiency of the finances needed by states to cope with their expanding area of constitutionally assigned services which usually involve huge amount of money (Udeh, 2002 and Ajala and Aworemi, 2013). Abo (2009) and Una (2011) posits that the financial strength of Cross River State has been destabilized, leading to a standstills of developmental projects in the state; as a result of loss of 13% derivative funds from the federal allocations and its capacity as oil producing

state. A situation which have invariably slowed down the development pace in the state and have left the state government with the option of reducing dependents on oil revenue and struggling to boost the revenue base of Cross River State through others sources of revenue to enhance the attainment of sustainable development.

Whereas, FIRS (2012) posit that, taxation is now globally recognized as the only practical source of sustainable revenue to finance government spending in states. This study therefore focuses on the State revenue generation as part of effort to boost development in the states of the federation. It is on this ground that this study assessed the contribution of personal income tax to revenue generated in Cross River State. The research question that guided the study was what impact has personal income tax impacted on revenue generated in Cross River State in the period 2003-2012? And the tested hypothesis in a null form was H_{01} : Personal income tax have no significant impact on revenue generated in Cross River State during the period 2003 to 2012.

2. LITERATURE REVIEW

Conceptual Framework

Revenue and Revenue Generation

The 1999 Constitution of the Federal Republic of Nigeria section 162 (10) (1) defined revenue as any income or return accruing to or derived by the government from any source (internal or external). Adam (2006) defined revenue as the funds required by the government to finances its activities. These funds are generated from different sources such as taxes, borrowing, fine and fees. Also revenue is defined as the total amount of income that accrues to a firm (public or private) within a specified period of time (Hamid, 2008). Ndubuisi (1997) and Bhatia (2001) contends that revenue receipt include “routine” and “earned” income. For these reasons, according to Ndubuisi (1997) and Bhatia (2001) revenue do not include borrowing and recovery of loans from other parties, but it includes tax receipt, donations, grants, fees, and fines. Routine means revenue generated without personal effort of the recipient such as non-tax revenue like donations and grants. Earned revenue means revenue generated with the personal effort of the recipient, such as tax revenue. Similarly, Peace (1986) as cited in Ishaq and Sani (2011) defined government revenue as all the money received other than from issue of and debt, liquidation of investments. Government revenue includes tax collections, charges and miscellaneous revenues, utility and insurance trust revenue for all funds and agencies of a government. Public revenue according to Stephen and Osagie (1985) is concerned with various ways in which the government raises

revenue. Alabade (2001), Ndule (2003) and Williams (2002) as cited in Abubakar and Kaka (2011) have found out that the bulk of government revenue comes from crude oil sales and that taxation provides the largest contribution of revenue generation in the non-oil group. Hence, revenue could be defined as the total amount of income accruing to a state from various sources within a specified period of time.

Personal Income Tax

Taxation can be defined as the system of imposing a compulsory levy on all income, goods, services and properties of individuals, partnership, trustees, executorships and companies by the government (Samuel and Simon, 2011; Yunusa, 2003). Anyafo (1996) defined taxation as a compulsory payment made by individuals and organization to relevant revenue authorities at the federal, state or local government level. Tabansi (2003) defined tax as a levy imposed by the government against the income, profit or wealth of individual, partnership and corporate organization. Kiabel and Nwokah (2009) argue that the increasing cost of running government coupled with the dwindling revenue has left all tiers of government in Nigeria with formulating strategies to improve the revenue base. Tax is dynamic, so reforms are necessary to effect the required changes in the national economy (Ola, 2001). The main purpose of tax is to raise revenue to meet government expenditure and to redistribute wealth and management of the economy (Ola, 2001; Jhingan, 2004; Bhartia, 2009). According to Ishaq and Sani (2011) Personal Income Tax is the oldest form of tax in the country. Adebisi and Gbegi (2013) posit that Person Income Tax is a tax levied on employment income and any other income received by an individual. Individual here means those in paid employment and self-employment. In the Nigerian taxing statutes, no comprehensive definition is given as to the meaning of the word income. Under the present Personal Income Tax Decree, income simply defined as including any amount deemed to be income under the Decree. And this is categories into earned and unearned income.

Tanko, Adah and Jibril (2010), opined that individual taxable income in this context is referring to addition of earned and unearned income where applicable. Earned income mainly includes salary and income from trade, business, profession or vocation as defined by the Personal Income Tax Act (PITA) of 1993 as amended to date. Unearned income refers to those incomes that individuals do not exercise physical energy to earn. It is simply a return from either short or long term financial investment, such as rent, interest on bank deposit and divided among others. The total income is the gross amount of income that is accruable to an individual tax

payer in a particular year of assessment. This amount however, will be subjected to deductions which are purely operative to generate the taxable income. The deductions are termed allowable deductions under section 20 of PITA, 1993. Subject to the provisions of this Act, tax shall be payable of each year of assessment on the aggregate amounts each of which is the income of every taxable person, for the year from a source inside or outside Nigeria, including, without restricting the generality of the foregoing: gain or profit from any trade, business, profession or vocation, for whatever period of such trade, business, profession or vocation may have been carried on or exercised. And any salary, wage, fee, allowance or other gain or profit from employment including compensations, bonuses, premiums, benefits or other perquisite allowed, giving or granted by any person to an employee (PITA S.3 (1)).

Contribution of Personal Income Tax to Revenue Generation

In countries with advanced tax system, the essence of income tax is not a disputable issue. Taxable adults pay their taxes willingly. Tanko, Adah and Jibril (2010) posits that various taxes are imposed by the public authorities of a state only on the identified tax payers for the purpose of contributing to the public funds; the main purpose being to finance Nigeria public expenditure. Yakubu (2013) opined that the payment of taxes by individuals, business, and registered companies in Nigeria is a civic duty and tax is imposed by the government on her subjects to enable the government finance public utilities and undertake other social responsibilities. In an attempt to secure the necessary funds for development efforts, governments globally (Nigeria inclusive) do levy different kinds of taxes on individual citizens as well as corporate bodies (Uremadu and Ndulue, 2011) as cited in Yakubu (2013). Abiola and Asiweh (2012) and Lyme and Oats (2010) state that, taxation is aimed at raising revenue to finance government expenditure, redistribution of wealth and income to promote the welfare and equality of citizens and regulation of the economy thereby creating enabling environment for business to thrive. The major role of tax is to generate significant revenue to the government at all levels. The various taxes collected from tax payers directly or indirectly come back to them in the form of provision of basic public amenities such as water supply, roads construction, schools, health care, electricity, and other public expenditure (Tanko, Adah and Jibril, 2010).

Sources of Revenue to State Governments in Nigeria

Revenue is the total income accruing to a government within a specific period of the time (Abubakar and Kaka, 2011). Aguolu (2004) posit that “revenue accrues to the government through diverse sources. These sources include: foreign aid and

humanitarian grants, income from government direct investments in commercial ventures, bilateral and international trade and taxation. Ajala and Oworemi (2013) opined that the major revenue heads in the state include: personal income tax, license, land registration and survey, pools, betting, lottery and casino, capital transfer tax, stamp duties and withholding taxes. Ishaq and Sani (2011) state that states government, like the other two tier of government has sources and used of revenue. Oshisami (1994) as cited in Ishaq and Sani (2011) states that there are basically two types of revenue that accrue to state governments. These are internally generated revenue and revenue allocated from the Federation Account. Internally generated revenue are those revenue that are derived within the state from various sources such as taxes (PAYE, direct assessment, capital gain taxes etc), and motor vehicle license among others. While the statutory allocation from the federation account, value added tax, and others constitute the external source. Most states of the federation get bulk of their revenue in form of statutory allocation from the federation account to finance their expenditure programs (Ishaq and Sani, 2011). The common sources of revenue among the state government in Nigeria as highlighted in Anyafo (1996) and Hamid (2008) include taxes, fines and fees, licences, earning and sales, rent from government properties, interest and repayment of loans, reimbursement, statutory grant and miscellaneous. State governments as the second tier of government in Nigeria drives its revenue from various sources. However, it should be noted that sources of revenue are by no means uniform among states. States derive their revenue depending on the resources available to them; (Anyafo, 1996; and Daniel, 1999) as cited in Ishaq and Sani (2011). According to year 2008 Cross River State Annual Accounts and Audit report on the account of Cross River State of Nigeria for the year ended 31st December, 2011; sources of revenue to Cross River State government include: statutory revenue allocation, internally generated revenue, value added tax, grants and reimbursements, internal and external loans, other receipts, joint state and local government revenue account and excess crude oil. Idiosyncratic attention is given to federal allocation and VAT as the major sources of revenue to state governments in Nigeria with other sources of revenue seeing as peripherals articulated into internally generated revenue.

Empirical Review

Empirical studies show that personal income tax has become very popular in the recent years. Ishaq and Sani (2011) evaluated the contribution of Direct Assessment to the internally generated revenue of Kano State in the period 1999-2008. Data was collected from the annual reports and account of the accountant general of Kano State, and was analyzed using descriptive statistics and Pearson's

correlation statistics. The result show that direct assessment does not contribute significantly to the internally generated revenue of Kano State. It constitutes little percentages of the personal income tax and also to the board of internal revenue collection. The study holds that this is partly as a result of the certainty of earnings from the federation account and corrupt practices by some tax officials and tax payers. Angahar and Alfred (2012) investigated the challenges and prospects for increased revenue generation from self-employed persons in the society. The study revealed that the success achieved by Federal Inland Revenue Service (FIRS) in meeting the targets set for its integrated tax offices nationwide is no doubt a challenge to its state counterparts. Personal income tax that is supposed to be paid by self-employed individuals in Nigeria constitutes a major source of revenue accruable to various state government of the nation. Unfortunately, the correct assessment and collection of taxes from these groups of taxpayers remains a mirage due to myriad of factors. Prominent among these factors is the failure of majority to register with revenue authority as revealed in their study. The study therefore recommends government to bring numerous self-employed persons in the society to pay taxes which can impact positively on increased revenue generation and quantity and quality of infrastructure provided by the government.

Okafor (2012), study tax revenue generation and Nigerian economic development; the Ordinary Least Square (OLS) regression analysis was adopted to explore the relationship between the GDP (the dependent variable) and a set of federal government income tax revenue heads over the period 1981-2007. A simple hypothesis was formulated in the null form which states that there is no significant relationship between federally collected tax revenue and the GDP in Nigeria. The regression result indicated a very positive and significant relationship. However actual tax revenue generated in most years fell below the level expected. The anomaly was attributed to dysfunctional-ties in the income tax system, loopholes in tax laws and inefficient tax administration. The recommends strategies should be adopt to improve the system of tax administration to increase tax revenue generation. A study was conducted by Oladunjoye and Olowolaju (2004) on Problems and Prospects of Income Tax as a Means of Revenue Generation in Osun State Board of Internal Revenue. This study was conducted to survey the system of internal revenue collection and enforcement procedures under the Personal Income Tax Act, 1993 and to identify the problems and difficulties encountered by the Revenue Service Department. It also sought to propose new approaches and methods of collection and enforcement to secure improved efficiency in tax administration. In order to accomplish the objectives of the study as highlighted above, the researcher made use of a survey design through which primary and

secondary data were collected. The study sampled 80 out of 319 staff of Osun State Board of Internal Revenue from which the 80 subjects of the study were drawn through purposive random sampling procedure. The data generated were analyzed through simple percentages. The findings of the study reveal that the Nigerian tax system is complex and is against the principle of a good tax system which emphasize simplicity and that the delay in legal proceedings and inappropriate monetary penalties to the offence committed, usually hinders a more effective enforcement of the tax laws. The study concluded that no single procedures of tax collection were entirely perfect and that the method and enforcement procedures should be improved. It therefore, recommended, among other things, the need to overhaul the Nigerian tax laws to reflect the current socio-economic development and to organize a publicity network which will enlighten the taxpayers on the need to pay tax. Tanko, Adah and Jibril (2010) assessed the reality of basic Nigerian tax relief allowances on individual taxable income. The study data were analyzed using ordinary least square regression. It was found that the existing receipt allowances are not realistic and that the fixed method of calculating the allowance is elusive, as such personal income tax suffered growth in value because of the ineligible amount of the allowances given to tax payers. The study recommended that tax allowances should be review from time to time to accommodate reality of tax payers' economy.

3. METHODOLOGY

This study was carried out in Cross River State. The study area was used because of data accessibility and the present economic reality of the state that is characterized with financial instability. The study adopted ex-post facto survey research design methods. The ex-post facto survey is used because the observed phenomena of the study have already occurred as such secondary data are collected. Secondary data were collected from database and records of Cross River State Internal Revenue Service and Cross River State Accountant General office.

The researcher developed model to enhance the achievement of specific objective of the study. The model one was proxies by: total revenue generated (dependent variable) and personal income tax (independent variable). It is stated as follows; $TRG = f [PIT]$. Where; TRG = Total revenue generated and PIT = Personal Income Tax. The study deals extensively on review of previous works and collated time series data (secondary data) from 2003 to 2012 relating to the contribution of Personal Income Tax and total revenue generated in Cross River State. The data generated from the study were presented in tables. This study uses econometric techniques for preliminary investigation of suitability of the data. OLS regression and descriptive statistics were used to analyze the data with the helped of Scientific

Package for Social Sciences (SPSS). Decision rule: the statistics; R^2 and DW figures are used to determine the relationship between the dependent variable: total revenue generated and the independent variable: Personal income tax.

4. DATA PRESENTATION AND ANALYSES

This section presents analyses and interprets the data based on secondary data collected from the Cross River State Internal Revenue Service and office of the Cross River State Accountant General.

Table 1 Personal Income Tax (PIT) and Total Revenue Generated (TRG)

Variables	PIT	TRG
Maximum	₦ 6,694,367,230	₦ 119,016,136,527
Mean	₦ 2,230,000,000.	₦ 66,560,000,000
Minimum	₦ 114,647,858	₦ 23,973,377,409

Source: SPSS Computation

Table 1 shows that the mean Personal Income Tax (PIT) is ₦ 2,230,000,000. The maximum PIT is ₦ 6,694,367,230 which was obtained in year 2012 and the minimum is ₦ 114,647,858 which was obtained in 2003. The probability of the JarqueBera statistics shows that the data are not normally distributed. The statistics of the Total Revenue Generated (TRG) shows that the mean or average TRG during the period under study is ₦ 66,560,000,000. The maximum and the minimum TRG are ₦ 119,016,136,527 and ₦ 23,973,377,409 respectively.

Table 2 ADF Unit Root Test Values showing the Relationship between PIT and TRG

Difference Level	Critical Value	PIT	TRG
	-4.196	-0.6689723	-2.68877
1 st	-4.3535	-2.3358	-2.22018
2 nd	-4.5810	-2.181014	-2.5889

Source: SPSS Computation

The SPSS results as shown in table 4.2 indicate that the Augmented Dickey Fuller (ADF) unit root test was carried out to test the stationarity of the data at the 1st and 2nd differences. The Personal Income Tax (PIT) was found to be non-stationary at 5% level since the ADF test statistics (-0.689723) was found to be greater than the critical value (-4.1961) at 5% level of significance. The PIT was also found to be non-stationary at 1st difference since the ADF statistics (-2.3358) was found to be greater than (-4.3535) at 5% level of significance. At 2nd difference, PIT was still found to be non-stationary since the ADF test statistics (-2.181014) is still greater

than critical value (-4.5810) at 5% level of Significance. However, since there is no differencing above the 2nd difference, we assumed that the data are stationary at 2nd difference.

The unit root test for TRG revealed that the data are not stationary at 5% level since the ADF test statistics (-2.68877) is greater than the critical value (-4.1961) at 5% level of significance. At 1st difference, the data was found to be non-stationary since the ADF test statistics (-2.22018) is greater than (-4.3535) at 5% level of significance. At 2nd difference, the data were still found to be non-stationary since the ADF test statistics (-2.5889) is greater than (-4.5810) at 5% level of significance. However, the data is assumed to be stationary at 2nd difference since it cannot be difference beyond 2nd difference. The Granger Causality test was also carried to find out the direction of causality between the variables. The test result suggests that at 5% level of significance, PIT does not Granger Cause TRG and TRG does not Granger Cause PIT and at 10% level of significance, PIT Granger Causes TRG.

Test of Hypothesis

H₀₁: Personal income tax has no significant impact on revenue generated in Cross River State during the period 2003 to 2012.

Table 3 Ordinary Least Square (OLS) Regression Model Estimates

$\hat{TRG} = 4.24 + 10.45(PIT)$	
(8.74)	(2.77)
4.84*	3.77*
R ² = 0.63	
D.W. = 1.88	
Standard errors in parenthesis	
Statistics in asterisk	

Source: Generated by Researcher using SPSS Version 17

From table 4.9 the result shows that a positive relationship exists between Personal Income Tax (PIT) and Total Revenue Generated (TRG) in Cross State during the period of the study. The partial slope of Personal Income Tax (PIT) shows that, if PIT should increase by 1 unit; the TRG will increase by 10.45 units. The standard error of the PIT suggests that the variable is statistically significant since the standard error is not more than half the coefficient of PIT. The R² of the model is 0.63, which suggests that about 63% of variation in TRG is explained by PIT. The Adjusted R² is still significant (0.59). The Durbin Watson statistics (D.W) which is (1.88) is okay, and it suggests the absence of serial correlation in the variables in

the model. Based on the results the null hypotheses (**H₀₁**) Personal income tax does not have significant impact on revenue generated in Cross River State is rejected at 5% level of significance and accept the alternative hypothesis that says Personal income tax have significant impact on revenue generated in Cross River State. This implies that increase personal income tax will have significant increase on total revenue generated in Cross River State.

Findings and Discussion

Based on the results of the analyses of secondary data and test of hypotheses, the following are the findings: Personal income taxes have significant impact on revenue generated in Cross River State. In other word there exist a positive significant relationship between personal income tax and revenue generated in Cross River State for the study period of 2003 to 2012. The study revealed that increase in personal income tax will facilitate increase in total revenues generation in Cross River State. As a unit increase in personal income tax will enhance 10.45 units increase in total revenue generation in Cross River State. The contribution of personal income tax to revenue generated in Cross River State as revealed in this study is affirmed by the disposition of Tanko, Adah&Jibril (2010) who posit that various taxes are imposed by the public authorities of state only on identified tax payers for the purpose of contributing to the public funds; the main purpose being to finance Nigerians public expenditure. And that the major role of tax is to generate significant revenue to the government at all levels. Also Angahar& Alfred (2012) opined that personal income tax in Nigeria constitutes a major source of revenue accruable to various states governments; unfortunately, the correct assessment and collection of taxes from personal income tax payers remains a mirage due to myriad of factors. However, Ishaq&Sani (2011) posit that direct assessment does not contribute significantly to internally generated revenue in Kano State, as it constitute little percentages of the personal income tax and Board of Internal Revenue collection. The study found out that, revenue accrued to states governments from many sources is evident by the view of Oshisami (1994) who posit that there are basically two types of revenue that accrue to state governments. These are internally generated revenue and revenue allocated from the federation account. Internally generated revenues are those revenues that are derived within the state from various sources such as taxes (PAYE and direct assessment) and motor license among others while statutory allocation, value added tax and others constitute the external source. Anyafo (1996) highlighted that state government as the second tier of government in Nigeria derives its revenue from various sources. However, it should be noted that sources of revenue are by no means uniform

among states. States derive their revenue depending on the resources available to them.

5. CONCLUSION AND RECOMMENDATIONS

This study concludes that personal income tax has significant impact on revenue generated in Cross River State. And increase personal income tax will enhance much increase in total revenue generation; as such personal income tax is a prime revenue source to Cross River State government. Hence, there is a need for government to adopt strategies that will boost revenue generation through personal income tax. However, reason that revenue generation is a matter of paramount importance for any meaningful development to take in the state, there is also need for government to put in place structured palliative measures that will check militating factors against revenue generation through personal income tax in Cross River State.

Based on the study findings and conclusion the following recommendations are made to enhance maximum contribution of personal income tax to total annual revenue generation in Cross River State, as follows: Cross River State government should see and take personal income tax as a major source of revenue to the government. Also, Government should adopt improve strategies in the administration of personal income tax to boost revenue generation through personal income tax in the state, by making effort to identify tax payers that are yet to be capture in the tax payers net through the development of data base of tax payers profile for each village in the state in order to improve direct assessment collection. Cross River State Internal Revenue Service (CRSIRS) should study and identify taxable persons that are not in the tax net both in the formal and informal sectors and their incomes, particular salaries of employees in private organizations to prevent revenue officers from colluding with tax payers to evade tax. Also the activities of engaged consultants should be monitor effectively. Aggressive public enlightenment campaigns on the need to pay tax should be put in place in each village and town in the state using local communities' languages and should as this will address the issue of literacy. Cross River State government should reduce reliance on federal allocation as prime basis of preparing the state budget, and set up a committee that will bring up palliative measures that will check militating factors against revenue generation in the state.

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**PROBLEMS AND PROSPECTS OF INTERNAL REVENUE GENERATION
IN ADAMAWA STATE, NIGERIA**

Salihu Zummo Hayatudeen¹ and Mohammed B. Adamu²

^{1&2}Department of Economics, ModibboAdama University of Technology Yola.

Abstract

The paper focuses on Problems and Prospects of Internal Revenue generation in Adamawa state, Nigeria. The paper used both structured/unstructured questionnaires in collection of data; Two hundred and fifty (250) questionnaires were administered out of which two hundred and twenty five (225) were retrieved. Both descriptive and inferential analyses were used in data analysis. The major findings of the research include revenue machinery are inadequate and out dated, inadequate staff and lack of professional personnel in revenue section, inadequate salaries and incentives for revenue collectors, inadequate provision of social services, Market and Motor Park are not fully utilized and political interference in appointment into task force board. Based on these findings The following recommendation were proffered; upgrading existing revenue machinery and updating the laws, Capacity building involving training and retraining of staff, and provision of incentive to revenue collectors, provision of Market and Motor Park and, nonpolitical interference in the appointment into the revenue task force board by the government should be stopped.

Keywords: Internal Revenue Generation, State Government Administration, Problems, Prospects.

1. INTRODUCTION

The structure of state government revenue is one of the focal points of public finance discourse in Nigeria. It deals with the generation of revenue in order to bring the impact of government closer to the people particularly at the state level. State government revenue is essential in enabling local governments transform the lives of local communities through the provision of social services and rural infrastructures (construction and maintenance of roads, drainages, culverts, markets, schools, and health centers). However, despite the fact that the funding of state governments in Nigeria is addressed by the constitution, it has suffered tremendously leading to deficit financing in quite a number of the State and local governments in Nigeria. This scenario is explained by over reliance on statutory

allocations from the Federation Account, state allocation, value added tax, grants and excess crude account, corruption, tax evasion from citizens at the grassroots, creation of non-viable local government councils in terms of the capacity to generate finance internally and effectively utilized it for development purposes. Nigeria's economic fortunes continue to be base on hopes of a stable domestic oil production and increasing oil prices. Unfortunately, times are changing and this is becoming problematic, the increasing cost of running government coupled with dwindling revenue has left various state and local governments in Nigeria with formulating strategies to improve the revenue base. More so, the collapse of the National Economy has created serious financial stress for all tiers of government hardest hit are the state and local governments all of whom have experienced unusual reduction in their share of the National Revenue from the Federation Account. (Busari, Akinbo and Adeboye, 2013). Despite the numerous sources of revenue available to the various tiers of government as specified in the Nigeria 1999 Constitution, since the 1970s till now, however, the serious decline in the price of oil in recent years has led to a decrease in the funds available for distribution to the states, there is need for state to generate adequate revenue from internal sources. This need underscores the eagerness on the part of state and the federal government to look for new sources of revenue or to become aggressive and innovative in the mode of collecting revenue from existing sources.

It has been shown that state government in Nigeria depends solely on statutory allocations from the federal government. In recent times though, there have been dwindling pattern in the federal allocation because most of the federal government revenue is from petroleum. There is less demand for petroleum in the world as other developed nations of the world are shifting away from petroleum as source of energy to other sources such as gas, solar energy. Then the onus lies on the state government to work on their internal revenue efforts to be able to accomplish its goals in the local community. State government now face more challenges in terms of struggling to be less dependent on the Federal government for financial resources. However, the revenue allocation system mandates that a certain fraction of the Federation Account be allocated to state government, these funds are not enough to meet expenditure requirements. This is because the size of the account is related to revenue from oil, which is subject to fluctuations, and the expenditures of state government far exceed available resources. The problem of lack of fiscal transparency as a result of mismanagement of funds, corruption, poor internal control and lackadaisical attitude to government work and property still abounds (Angya, Ibrahim and Emmanuel, 2015).

Internal revenue generation has over the year remained the main focus of all state government in Nigeria, indeed the entire administration of state government are informed by the important role play by internal revenue generation in their society. This is due to the issue of finance that has been the major problem, which State Government in Nigeria is grappling with in recent times, however, many of them have made attempt to exploit economics potentials of their area, which are in abundance, to finance their activities and enhance their development. Thus, however, the effort made some problems still impede effective and efficient revenue generation in State and local government setting. Furthermore, the obvious questions that arise are what revenue is and why has revenue generation become a potent force in the lives of men, organization and nation. The importance of revenue to the state government or any organization cannot be over-emphasized, despite this, there are need to identify accurately the sources of internally generated revenue in Adamawa state, the area of potential important sources of revenue that are not exploited and also the problem that undermined the effective and efficient revenue generation in Adamawa state setting and also solution to those problems are necessary for curbing those problem as they affect internal revenue generation in Adamawa state. Revenue as the yields of source of income as taxes, fees, rates and fines that a political unit (as a nation or state) collects and receive into the treasury for public use, State government exist to cater for socio-economic interest and provide for peasant physical infrastructure facilities, education and health services essential for the grass-root people so as to improve economic productivity and life at the grass-root level, (Adeogun, 2010).

All these are aimed at ensuring adherence to tax payment and discouraging tax evasion and avoidance. For the purpose of this study, the researchers are concerned with the prospects and problems of internally revenue generation in the Adamawa state, Nigeria.

The principal objective of this paper is to assess internally generated revenue in Adamawa State. The following specific objectives include to;

- i. Determine whether the estimated internal revenue target are been made over the years.
- ii. Examine the existing machinery for revenue collection and identify additional sources of revenue.

The research null hypothesis; is specified as H_0 :

There is no significant relationship between estimated revenue targeted and the existing machinery in Adamawa state

2. LITERATURE REVIEW

Internally generated revenue are those revenues that are derived within the state from various sources such as taxes (pay as you earn, direct assessment, capital gain taxes, etc.), and motor vehicle license, among others, (Ezugwu&Agbaji, 2014). It is not disputable that the revenue generation in Nigeria is far below expectation. It has become imperative to diversify areas of revenue generation especially with the dwindling federal allocation, which have been the major sources of revenue to the state government. The internally generated revenue which was hoped to accelerate the finance of the state government is bedeviled by corrupt practices on the part of revenue collectors. It has been observed that these revenue collectors have in the possession unofficial receipts; this enables them to divert state government funds into private use. Corruption is the locust that has eaten state government revenue, this manifested in the distorting of revenue return receipts, embezzlement and misappropriation of funds. In addition, Poor financial management is a major problem of revenue generation in Adamawa State and this arises from poor attitude to work as well as lack of integrity of revenue collectors. Ineffective Strategies for Enhancing Internally Generated Revenue in the state government, was also contributed to poor revenue generation. These human related factors no doubt negatively affected development at the state government level which is the bedrock for genuine national development. Furthermore, the inability of the state administrators to use in sourcing techniques for funds to finance the council through internally generated revenue is a thorn in the flesh of meeting up their constitutional responsibilities such as the provision and maintenance of social services (education and health care) payment of the worker's salary.

Ompe, Ohiaka, Ahmed and Ojo, (2005), the study revealed that local government in Nigeria are confronted with several problems which include corruption on the part of revenue collectors, lack of bye-laws on revenue tariff, farming out of revenue base on political patronage.

Furthermore, section 162(6) of 1999 constitution of the Federal Republic of Nigeria requires that each state shall have a special account to be referred as 'state joint local government account'. Therefore, Taraba state operates the Joint Account Committee, which is a committee responsible for allotting of funds to local governments. Through this committee, statutory deductions (e.g., deductions for financing the activities of local government service commission, Universal Basic Education, local government Pension Board, among others) are made as required by section 162(6) of Nigerian constitution. Yet, the deductions made the statutory allocation grossly inadequate to finance the activities of the local governments. (Abba, Bello and Bakari 2008).

Olusola (2011) using ordinary least square found out that rates, fines, fees and licenses, rent sources of revenue are significant factors influencing internally generated revenue of local governments in Ogun State. It noted that out of the major internal revenue sources statutorily allocated to Local governments, the combination of rates, local license, fees and fines, and earnings from commercial undertaking account for upwards of 75% of Local Government internally generate recurrent revenues.

Edogbanya and Ja'afaru (2013) state that there is a significant relationship between revenue generated and developmental effort of government, poor development of the areas, lack of basic social amenities to the rural people and lack of revenue to maintain the existing infrastructures, However, despite the numerous revenue sources at the doors of the various tiers of government as specified in the Nigerian 1999 constitution, since the 1970 till now, over 80% of the annual revenue of the three tiers of government comes from crude oil. Adenugba and Ogechi further stressed that the serious decline in the price of oil in recent years decreases the funds available for redistribution to various states.

Adesoji and Chike (2013) reported that there is a positive relationship between infrastructural development and internally generated revenue. The study also reveals the various methods of generating internal revenue are contribution, creation of public enlighten and the use of tax personnel via enforcement. However, their study suggests that there is need to overhaul the revenue administration agencies in order to promote revenue generation in the country. Moreover, allocation of revenue to the tiers of government does not normally follow the norms to fulfill the expenditure requirements of each of the three tiers of government, hence, the federal government can be viewed as a surplus-spending unit.

Abba, Bello and Modibbo (2015), examined the relationship between Expenditure and Internally Generated Revenue at local government level in Adamawa state. They found that expenditure has significant impact on local government internally generated revenue. Their study recommends that Proper accountability and transparency should be adopted in incurring expenditure (capital and recurrent) in the local government. This may include community participation on project to be executed in the local government, disclosing what has been generated as IGR over a period of time. They also recommend that capital expenditure in the local government should be encouraged. Some of the recurrent expenditure that does not contribute significantly to the revenue generation in the local government should be minimized. Such recurrent expenditures are those in the office of the chairman,

secretary, legislative arm and personal management should be minimized, so that the amount can be allocated for capital expenditure.

Onodugo, Vincent and Benjamin (2015), posited that one of the factors responsible for Local Government poor revenue collection is the casual attitude of the revenue collectors and other treasury staff. They labour under the illusion that (no attar) whatever revenue they collect directly, the 'father charismas' of Federation Account will provide adequate funds for the payment of personal emoluments of the staff. This assumption is deceptive in that with poor revenue generation efforts, some council have found themselves unable to pay salary after deductions made by the State Governments.

Therefore, the need for states and local governments to generate adequate revenue internally has become necessary and a matter of significant importance. This need underscores the eagerness on part of the states and local governments and even the federal government to look for new sources of revenue or to become more concerned and innovative in the mode of collecting revenue from existing sources (Abba, and Kakanda, 2017).

Various empirical studies like Chike (2013) Edogbanya and jafaru (2013) Abba, Bawa and Bakari (2015) Abba and Kakanda (2017) recommended for government to make effort to generate revenue o reduce dependency on grants from the federal government. These studies did not specifically discuss on the mechanism on how to increase the revenue generation.

3. METHODOLOGY

The data of this study was obtained from primary source, through administrative officers and the revenue collectors in the field, by the means of questionnaires. Technique of analysis, the study uses both descriptive and inferential analysis to analyze the data of the study. The descriptive statistics such as table and percentages were used. While the inferential analysis deals with chi-square. The percentages and chi-square were obtained by converting responses from respondent in each question. Sample of staff from the population, which comprises finance, supply and statistics department with the total population of 450 staff and sample size of 250 staff, was drawn from the population. The purposeful and simple random sampling method were used, where the purposeful method was based on the administrative staffs while simple random sampling method was carried out on the revenue collectors in the field.

Two hundred and fifty: (250) questionnaires were administered out of which two hundred and twenty five, (225) were retrieved. Therefore, data analysis and

computation on both descriptive and inferential analysis was based on two hundred and twenty five, (225) questionnaires retrieved. The technique used in the inferential analysis was chi-square. The model used in this study is specified as:

$$X^2 = \sum \frac{(O-E)^2}{E}$$

Where = summation

O = observed frequency

E = expected frequency

4. RESULTS AND DISCUSSIONS

This section deals with presentation and analysis of the data collected according to the objective of the study. The study uses both descriptive and inferential analysis, where simple percentage and tables were carried out for the descriptive analysis and chi-square (X^2) was used for the inferential analysis.

Table 4.1: Socio- Economic characteristics of the respondents

Variable	Option	Frequency	Percentage
Age	0 – 25	30	13 %
	26 – 50	168	72 %
	Above 50	33	15 %
	Total	225	100 %
Educational attainment	Primary	20	9 %
	Secondary	83	37%
	Tertiary	90	40%
	None formal	32	14%
	Total	225	100%
Experience	0 – 5	26	12%
	6 – 10	97	43%
	Above 10	102	45%
	Total	225	100%
Staff incentives	Housing allowance	8	3.9%
	Transport allowance	50	22%
	Award of excellence	10	4.1%
	Non of the above	157	70%
	Total	225	100%

Source: Field survey, 2016.

Table 4.1 Shows that 8 (3.9%) percent of the respondent are of the view that housing allowances are given, 50 (22%) percent indicate transport allowances are given, 10 (4.1%) percent indicate that award of excellence given 22 (9.8%) percent show that lunch are given to them and 157 (70%) percent indicate none of the transport, housing, reward of excellence performance and launch are given to revenue collectors. This shows that revenue collectors in Adamawa state are not motivated.

Table 4.2 Respondents' responses source of internal revenue to state government

S/N	Responses	Frequency	Percentage
1	Rate	3	1.3%
2	Taxes	124	55%
3	Local licenses	4	1.8%
4	Pay as you earned	60	26.7%
5	Taxes on betting bus.	8	3.7%
6	With held tax	7	3%
7	Development levies	10	4.5%
8	Others	9	4%
	Total	225	100%

Source: Field survey, 2016.

Table 4.2 Shows that 124 (55%) percent of the respondents are of the opinion that taxes constitute the main source of revenue, 3(1.3%) percent indicate Rate, 4 (1.8%) indicate state license, 60 (26.7%) indicate paye, 8 (3.7%) indicate Taxes on betting business,7(3%) indicate Withheld tax, 9(4%) indicate Development levies and 9(4%) indicate that other sources. It implies that taxes are the main sources of the internally generated revenue of the Adamawa State government.

Table 4.3 Respondents' responses on the existing machinery for revenue collection

S/N	Responses	Frequency	Percentage
1	Availability of the machinery		
	Yes	26	11.6%
	No	199	88.4%
	Total	225	100%
2	The effectiveness of by-laws		
	Adequate	87	38.7%
	Inadequate	138	61.3%
	Total	225	100%
3	Improve pace on revenue generation		
	Provision of soc. Service	4	1.8%
	Building of market & motor park	8	3.6%
	Others	12	5.3%
	None of the above	201	89.3%
	Total	225	100%

Source: Field survey, 2016.

Table 4.3 shows that only 26 (11.6%) percent of the respondents are of the view that there is availability of machinery while 199 (88.4%) were of the view that there is no availability of machinery. It can be observed that only 87 (38.7%) percent of the respondents are of the view that there are enough by-laws to protect revenue collectors while about 138 (61.3%) argued that there are no enough by-laws to protect revenue collectors in the state government. The results showsthat 4(1.8%) percent of the respondent indicate that there provision of social services to generate revenue, 8 (3.6%) it indicate that building of market and Motor-Park for revenue, while 12(5.3%) indicate others means are used for revenue generation and about 201(89.3%) this figure indicate none availability of machinery for revenue generation in the study area.

Inferential analysis

The technique used in the inferential analysis is Chi-square; the responses were obtained from respondent in each question.

Ho: there is no significant relationship between the estimated revenue targeted and the existing machinery in Adamawa State

Table 4.2 Chi- square distributions showing the relationship between the revenue generated and the machinery for revenue generation in Adamawa State.

Yes	No
88	137
60	165
110	115
104	121
60	165
27	198
82	143
77	148
77	148

Source: Field survey, 2017

Table 4.2 shows frequency of observed results with regards to responses on the relationship between estimated revenue and availability of the machinery for revenue enhancement in Adamawa State. These results were used to calculate the chi-square as shown in table 4.3 below.

Table 4.3 Computation of chi-square showing the relationship between the estimated revenue and the machinery in Adamawa State

Categories	<i>O</i>	<i>E</i>	<i>O – E</i>	$(O - E)^2$	$\Sigma \frac{(O-E)^2}{E}$
1	88	112.5	-24.5	600.25	5.34
2	137	112.5	24.5	600.25	5.34
3	60	112.5	-52.5	2756.25	24.5
4	165	112.5	52.5	2756.25	24.5
5	110	112.5	-2.5	6.25	0.06
6	115	112.5	2.5	6.25	0.06
7	104	112.5	-8.5	72.25	0.64
8	121	112.5	8.5	72.25	0.64
9	165	112.5	52.5	2756.25	24.5
10	60	112.5	-52.5	2756.25	24.5
11	198	112.5	85.5	7310.25	64.98
12	27	112.5	-85.5	7310.25	64.98
13	143	112.5	30.5	930.25	8.27
14	82	112.5	-30.5	930.25	8.27
15	148	112.5	35.5	1260.25	11.20
16	77	112.5	-35.5	1260.25	11.20
17	148	112.5	35.5	1260.25	11.20
18	77	112.5	-35.5	1260.25	11.20
Total	2025				301.38

DF = c – 1

18 – 1 = 17

0.05 Significant = 27.587

From table 4.3 the Chi-square (X^2) calculated the critical value and the degree of freedom are displayed. When the calculated chi-square is greater than the tabulated chi-square we accept the null hypothesis, and when the calculated is less than the tabulated we reject the null.

Decision: X^2 at 17 degree of freedom (df) at 0.05 level of significance = 27.87 and the calculated (X^2) = 301.38. Therefore, we accept the null hypothesis which states that there is no significant relationship between revenue targeted and the machinery for revenue collection in Adamawa state.

Major Findings

The study reveals that inadequate staff and qualified personnel in revenue section of the state government.

1. It was discovered that the existing by-laws are out dated and cannot generate reasonable revenue to the state governments.
2. In the course of the study, it was discovered that, there is inadequate provision of incentive to revenue collectors.
3. The study identify that the state government has insufficient Market and Motor Park for substantial revenue generation.
4. The present machinery of revenue generation is not strong for efficient and effective revenue generation in the state government.
5. Inadequate provision of social service was discovered as a problem to revenue generation in the state government.
6. Political interference in revenue collection in the state government has played a significant role in the downswing of revenue in the state government.

5. CONCLUSION AND RECOMMENDATIONS

The study utilized Simple percentage method of analysis and both structure/ unstructured questionnaire were administered to the sample of staff from the population which comprises finance, supply and statistics department with the total population of 450 staffs and sample size of 250 staff was draw from the population of the study. Primary data was use for the purpose of gathering information. Internal revenue generation must be given top priority because of its important role-play in the financial stand of any state government in Adamawa State, Nigeria. Also effective and efficient internal revenue generation mechanism should be set in motion in the state government in order to ensure vibrant financial position of state government and avoid over dependent on statutory allocation from federal and ensure efficient performance of state government.

Based on the findings, the following were recommended:

1. There should be capacity building and personnel efficiency among revenue staffs, hence training and retraining of all cadre of revenue staffs will be a welcomed development
2. There should be fundamental by-laws to deal with defaulter and protect revenue collectors and the existing by-laws should be up-date to nab defaulters, appropriate law should be promulgated in order to sanitize the revenue of the state government

3. The state government should give transportation, Housing allowance, award of excellence performance and lunch to revenue staff.
4. the state government should acquire land and build more Market and Motor park within and outside the metropolis of the local government
5. Provision of essential service to populace would have psychological effect on the indigene by feeling that government cares for their welfare and thereby motivate them to respond to their obligation to the government
6. Public enlightenment campaign should be embarked upon so as the indigene would be informed of the policy of government as regards revenue generation

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AN ASSESSMENT OF THE ADOPTION OF INTERNATIONAL FINANCIAL REPORTING STANDARDS AMONG SMEs IN NIGERIA

Salihu Aliyu Modibbo¹ Adamu Danlami Ahmed² and Kumshe Hauwa Modu³

¹Department of Accountancy, Modibbo Adama University of Technology, Yola. Email: salihumodibbo@gmail.com

²Department of Accounting, Gombe State University, Gombe State, Nigeria
Email: adamud.ahmed63@yahoo.com

³Department of Banking and Finance, Modibbo Adama University of Technology, Yola, Nigeria
Email: hajiyakumshe@gmail.com

Abstract

This study examines the adoption of International Financial Reporting Standards (IFRS) by Nigerian Small and Medium Enterprises with reference to SMEs in Adamawa State. Primary data was obtained through the administration of questionnaires to one hundred (100) sampled SMEs and the data collected were analyzed using Chi-square analysis. The results showed that the SMEs in Adamawa state have not adopted IFRS. The study concludes that despite the cumbersomeness and the anticipated problems of IFRS adoption by SMEs in Adamawa State, SMEs should be encouraged to convert to IFRS as the adoption of IFRS will enhance better accountability, transparency and improve quality of financial reporting standard.

Keywords: IFRS, SMEs, IASB CAMA, Adoption

1. INTRODUCTION

The preparation of organization's financial statements must follow certain rules, principles and guideline. In Nigeria, Companies and Allied Matters Act (CAMA'90) as amended is the legal and regulatory document that provides framework of accounting in respect to preparation of financial report before the adoption of International Financial Reporting Standard (IFRS). The need for quality and uniformity in the preparation and presentation of financial statements around the globe has necessitate the international Accounting Standard Board

(IASB) to issue a single set of consistent high quality financial reporting standard called International Financial Reporting Standard (IFRS). International Financial Reporting Standards represents a unified global commitment to developing a single set of high quality, globally accepted accounting standards whose aim is to provide transparent and comparable information that is in the public interest through general purpose financial statements (Herbert, 2010).

The introduction of an acceptable global high quality financial reporting standards was initiated in 1973 when the international accounting standard committee (IASC) was formed by 16 professional bodies from different countries such as United States of America, United Kingdom, France, Canada, Germany, Australia, Japan, Netherlands and Mexico (Garuba and Donwa, 2011). In order to harmonize financial reporting around the globe, Nigeria was not left behind because Nigeria's Federal Executive Council (FEC) gave approval for the convergence of Nigerian SAS with the IFRS from January 1, 2012. Also IFRS adoption committee was set up by FEC, where it was agreed that Public Listed Entities and Significant Public Interest Entities are expected to adopt the IFRS in the preparation of their financial statements by January 2012. All other Public Interest Entities are expected to mandatorily adopt the IFRS for statutory purposes by January 2013, and Small and Medium-sized Entities (SMEs) shall mandatorily adopt IFRS by January 2014. Small and medium scale enterprises (SMEs) are generally regarded as the engine of economic growth and equitable development in developing economies. They are labour intensive, capital saving and capable of helping government in creating various new jobs. They are also perceived as the key to the developing countries economic growth, poverty alleviation and employment generation.

There is hardly any unique, universally accepted definition of SMEs because the classification of business into small and large scale is a subjective and qualitative judgment (Ekpeyong&Nyong, 1992). Egbuogu (2003) noted that definitions of SMEs vary both between countries and between continents. The major criteria use in the definitions of SMEs, according to carpenter (2003), could include various combinations of the following: Number of employees, financial strength, Sales value, Relative size, Initial capital outlay and types of industry.

According to Esseim (2001), small-scale industry as an industry with total capital employed of over N1.5 million but not more than N50 million, including assets and for labour size eleven to one hundred 11-100 workers. Any enterprise with less is to be recorded as Micro.Fasua (2006) categorized business that fall under small and medium scale as follows: in small scale enterprise, firewood supply, packaging of food items, meat retailing, plantain production, restaurant service, small scale

poultry raising, rabbit raising, operating a nursery for children, home service, arranging food for parties and host of others. A major characteristic of Nigeria's SMEs relates to ownership structure or base, which largely revolves around a key man or family owned enterprises. Hence, SMEs is either sole proprietorships or partnerships. Even where the registration status is of a limited liability company, the true ownership structure is that of a one-man, family or partnership business.

Most SMEs in Nigeria do not survive within their first five years of existence because of the various challenges and problems they faced. These include: lack of proper book keeping, lack of any records at all, insufficient capital, inability to separate business and family or personal finances, lack of business strategy and inability to distinguish between revenue and profit. Apart from the above problems mentioned, small and medium sized Enterprises in Nigeria are expected to mandatorily adopt the IFRS for statutory purposes by January 2014.

In view of the above, this paper aims at finding whether or not the SMEs in Adamawa State adopted IFRS as mandated. To achieve the main objective, specific objectives are: whether or not SMEs maintain proper books of accounts, whether or not the SMEs in Adamawa state are aware of the IFRS. To achieve this objective, the paper comes up with research questions as: Are the SMEs in Adamawa State maintain proper books of accounts. Are the SMEs in Adamawa state aware of the IFRS? Does SMEs in Adamawa State adopt IFRS?

Considering the research questions, the following null research hypotheses were also formulated as: SMEs in Adamawa State do not maintain proper books of accounts. SMEs in Adamawa state are not aware of the IFRS. SMEs in Adamawa State do not adopt IFRS.

2. LITERATURE REVIEW

In Nigeria, there is no clear-cut definition that distinguishes a purely small scale enterprise from a medium-scale enterprise. The Central Bank of Nigeria, in its Monetary Policy Circular No. 22 of 1988, defined small-scale enterprises as having an annual turnover not exceeding 500,000 naira. In the 1990 budget, the federal government of Nigeria defined small-scale enterprises for purposes of commercial bank loans as those with an annual turnover not exceeds 500,000 naira, and for Merchant Bank Loans, those enterprises with capital investments not exceeding 2 million naira (excluding cost of land) or a maximum of 5 million naira. The National Economic Reconstruction Fund (NERFUND) put the ceiling for small-scale industries at 10 million naira while Section 37b (2) of the Companies and Allied Matters Decree of 1990 defines a small company as one with: an annual

turnover of not more than 2 million naira and net asset value of not more than 1million naira.

Small and Medium Enterprises are seen today as the backbone of every economy throughout the world (Ojeka& Dickson, 2011). Thus, SMEs are significant in the development of every country's economy and they are defined using a certain characteristics which differ in terms of ownership structure, size, turnover, number of employees, total assets and capital base. These kinds of enterprises exist all over the continent and in all sectors of the Nigerian economy. SMEs in Nigeria consist of the private sectors, professionals groups and associations. Murumba&Makworo (2011) submitted that micro and small scale entrepreneurs who include agriculture and rural businesses have contributed greatly to the growth of Kenyan economy. The sector contributes to the national objective of creating employment opportunities, training entrepreneurs, generating income and providing a source of livelihoods for the majority of low income households in the country's accounting for 12-14% of GDP.

Kilby (1969) sees SMEs as a quasi-sponge for urban employment and a provider of inexpensive consumer goods with little or no import content, serving an important pressure-releasing and welfare-augmenting function. SMEs also contribute to long-run industrial growth by producing an increasing number of firms that grow up and out of the small-scale sector. The emergence of wholly modern small/medium-scale Nigerian industries is likely to be a prerequisite for any enduring industrialization. However, apart from being expected to maintain necessary books of account for proper record keeping of various SMEs, they are also presently expected to adopt the IFRS in there day to day activities of their business. IASB 2009 said that IFRS is designed for SMEs and it is a self-contained standard of 230 pages, designed to meet the needs and capabilities of Small and Medium sized Entities (SMEs). SMEs generally have limited staff and resource and they will face significant costs while adopting IFRSs. The users of SMEs financial statements would be creditors, suppliers, employees and the tax authorities may focus on different information compared with the users of financial statements of listed companies. They may be more interested in short term cash flows, liquidity and interest coverage (Sivaram, 2006).

Other empirical studies revealed that adoption of International Financial Reporting Standard yield various benefit as in Jermakowicz, (2004), Jermakowicz et al. (2007); Alicja et al., (2007) Susana et al., (2007) Apostolos et al., (2010) and Iyoha&Faboyede, (2011) They also maintain that adoption of IFRS has a number of important benefits for a wide range of stakeholders such as, increased

comparability of consolidated accounts, increased levels of transparency, better access to the global capital markets and other stakeholders would benefit from overall better reporting and information. According to Bohusova (2011), the secondary research made in less developed countries such as South Africa, Turkey, Kenya, Ghana found out that the adoption of the IFRS for SMEs would improve their access to financial support funds, this would help them to penetrate foreign markets and thus their financial situation and performance would be improved. This study agrees with the above statement and Therefore, Nigeria would not be exceptional to this case been an African country of moving its SMEs toward compliance with IFRS.

Arsoy&Sipahi(2008) made it clear that the adoption of IFRS for SMEs in Turkey changed the accounting system and met the needs of the users of SME financial statements, although the adoption process was complex, because of the corporate structure of SMEs and the limited education opportunities about IFRS. This paper agrees that the process was complex but also costly in terms of human and material resources and problems of awareness and lack of adoptions as a result of other problems facing SMEs.

IASB (2007) opine that the benefits of the IFRS for SMEs are as follows; it will improve the comparability of financial information of SMEs at either national or international levels make it easier to implement planned cross-border acquisitions and to initiate proposed partnerships or cooperation agreements with foreign entities, help SMEs to reach international markets. SMEs will have a positive effect on the credit rating scores of enterprises. This will strength SMEs' relationship with credit institutions and the adoption of IFRSs will enhance the financial health of the SMEs.

From the above literature reviewed, this study agrees that there is no specific definition of SMEs and the adoption of IFRS by SMEs has benefits and challenges and considering Nigeria, there is no clear-cut definition that distinguishes a purely small scale enterprise from a medium-scale enterprise and various definitions of SMEs above and the classification of businesses into large-scale or small-scale are subjective and qualitative judgments. This study considers the following as the definitions of SMEs:

Small Enterprise: An enterprise whose total cost, including working capital but excluding cost of land, is between ten thousand naira (10,000) and ten million naira (N10, 000,000) and/or a workforce between one (1) and seventy (70) full-time staff and/or with a turnover of not more than ten million naira (N10,000,000) in a year.

Medium Enterprise: an enterprise with total cost, including working capital but excluding cost of land, between one hundred thousand and one hundred million naira (N100, 000,000) but less than three hundred million naira (N300, 000,000) and/or a staff strength of between seventy-one (71) and two hundred (200) full-time workers and/or with an annual turnover of not more than twenty million (20,000,000) in a year.

3. METHODOLOGY

In order to achieve the aims of this paper, a survey research design was employed to study the adoption of IFRS by SMEs in Adamawa State. The population for this study was made up of one hundred (100) Small and Medium Enterprise in Adamawa state, who were selected randomly. The entire population was taken as sample size and copies of questionnaire were issued to the sampled SMEs. Chi-square technique was used for testing the Hypothesis formulated for the study.

4. RESULTS AND DISCUSSION

Hundred Questionnaires were distributed and retrieved at the same time to the sample size of the study and the hypotheses formulated were tested using Chi-square technique.

Hypothesis one: SMEs in Adamawa State do not maintain proper books of accounts

Table one

ITEMS NOS	O	E	O-E	(O-E) ²	$\frac{((O-E)^2)/E}{}$
1	65	48.33	16.67	277.8889	5.749822
2	32	48.33	-16.33	266.6689	5.517668
3	48	48.33	-0.33	0.1089	0.002253
4	32	48.67	-16.67	277.8889	5.709655
5	65	48.67	16.33	266.6689	5.479123
6	49	48.67	0.33	0.1089	0.002238
TOTAL=	293	293			
CHI-SQUARE STATISTIC VALUE IS =					22.460759

Field Survey, 2017

From the hypothesis one (1) tested, the result shows that the calculated chi-square of 22.460759 is higher than the chi-square tabulated of 5.9919 at 5 % level of significance with the Df = 3. This implies that the null hypothesis which stated that

SMEs in Adamawa stated do not maintain proper books of account is rejected and the alternative is accepted. Hence, SMEs in Adamawa maintains proper books of accounts.

Hypothesis two:SMEs in Adamawa state are not aware of the IFRS

Table Two

ITEMS NOS	O	E	O-E	(O-E) ²	((O-E) ² /E)
1	1	0.66	0.34	0.1156	0.17515152
2	15	15.34	-0.34	0.1156	0.00753585
3	0	0.25	-0.25	0.0625	0.25
4	6	5.75	0.25	0.0625	0.01086957
5	0	0.29	-0.29	0.0841	0.29
6	7	6.71	0.29	0.0841	0.01253353
7	0	0.25	-0.25	0.0625	0.25
8	6	5.75	0.25	0.0625	0.01086957
9	1	0.21	0.79	0.6241	2.97190476
10	4	4.79	-0.79	0.6241	0.13029228
11	0	0.12	-0.12	0.0144	0.12
12	3	2.88	0.12	0.0144	0.005
13	0	0.12	-0.12	0.0144	0.12
14	3	2.88	0.12	0.0144	0.005
15	0	0.37	-0.37	0.1369	0.37
16	9	8.63	0.37	0.1369	0.01586327
17	0	0.21	-0.21	0.0441	0.21
18	5	4.79	0.21	0.0441	0.00920668
19	0	0.21	-0.21	0.0441	0.21
20	5	4.79	0.21	0.0441	0.00920668
21	0	0.49	-0.49	0.2401	0.49
22	12	11.51	0.49	0.2401	0.02086012
23	2	0.82	1.18	1.3924	1.69804878
24	18	19.18	-1.18	1.3924	0.07259645
TOTAL=	97	97			
chi-square statistic value is =					7.46493906

Field Survey, 2017

From the hypothesis two (2) tested, the result shows that the calculated chi-square of 7.46493906 is lower than the chi-square tabulated of 19.65 at 5 % level of significance with the Df = 11. This implies that the null hypothesis which states that SMEs in Adamawa are not aware of the IFRS is accepted and the alternative is rejected.

Table Three: Hypothesis three: SMEs in Adamawa State do not adopt IFRS

ITEMS NOS	O	E	O-E	(O-E) ²	((O-E) ² /E)
1	1	0.66	0.34	0.1156	0.17515152
2	15	15.34	-0.34	0.1156	0.00753585
3	0	0.25	-0.25	0.0625	0.25
4	6	5.75	0.25	0.0625	0.01086957
5	0	0.29	-0.29	0.0841	0.29
6	7	6.71	0.29	0.0841	0.01253353
7	0	0.25	-0.25	0.0625	0.25
8	6	5.75	0.25	0.0625	0.01086957
9	1	0.21	0.79	0.6241	2.97190476
10	4	4.79	-0.79	0.6241	0.13029228
11	0	0.12	-0.12	0.0144	0.12
12	3	2.88	0.12	0.0144	0.005
13	0	0.12	-0.12	0.0144	0.12
14	3	2.88	0.12	0.0144	0.005
15	0	0.37	-0.37	0.1369	0.37
16	9	8.63	0.37	0.1369	0.01586327
17	0	0.21	-0.21	0.0441	0.21
18	5	4.79	0.21	0.0441	0.00920668
19	0	0.21	-0.21	0.0441	0.21
20	5	4.79	0.21	0.0441	0.00920668
21	0	0.49	-0.49	0.2401	0.49
22	12	11.51	0.49	0.2401	0.02086012
23	2	0.82	1.18	1.3924	1.69804878
24	18	19.18	-1.18	1.3924	0.07259645
TOTAL=	97	97	0	5.6704	0.05845773
chi-square statistic value is =					7.523397

Field Survey, 2017

From the hypothesis three (3) tested, the result shows that the calculated chi-square of 7.523397 is lower than the chi-square tabulated of 19.65 at 5 % level of significance with the Df = 11. This implies that the null hypothesis which states that SMEs in Adamawa State do not adopt IFRS is accepted and the alternative is rejected.

5. CONCLUSION AND RECOMMENDATIONS

This study concludes that SMEs in Adamawa are not even aware of the IFRS and has not adopted IFRS due to the challenges of adopting ranging from cost, problem of understanding the new global standards and frequent standards changes. Although, IFRS adoption has challenges but the adoption will enhance better accountability, transparency and improve quality of financial reporting standard.

Based on the conclusion of this study, the following recommendations are made:

1. SMEs in Adamawa should maintain complete record not incomplete record.
2. Government and other accounting bodies should make SMEs aware of the IFRS by educating, training and enlightenment campaigns.
3. International Accounting standard board should encourage the adoption of IFRS by SMEs in Nigeria considering the benefits to be derive when comply with the adoption. E.g. easy access to multinational capitals. Comparability and transparency advantages.
4. Frequent changes in the IFRS should be avoided because the standards affect world entirely.

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TREASURY SINGLE ACCOUNT: A PANACEA TO PUBLIC FINANCIAL MISMANAGEMENT IN NIGERIA

Bashir Ahmad Daneji¹, Mohammed Haruna², Kabiru Musa Yakubu³ and Mohammed D.⁴Yole

¹badaneji@mautech.edu.ng

^{1,2,3,4}Department of Banking and Finance
ModibboAdama University of Technology, Yola

Abstract

Nigeria has been battling public financial mismanagement for long with little or no success. In 2012, government took a bold step by introducing a public financial accounting system called treasury single account which was totally foreign in its public finance domain. Its implementation was slow and unnoticed up till 2015 when the implementation was full and in toto. This study titled Treasury Single Account: A Panacea to Public Financial Mismanagement in Nigeria is an attempt to examine the term TSA and assess its capability as a tool for public financial mismanagement. The study is not empirical, and secondary data were used. It was found that TSA operation was not well known at the beginning but with time it was understood. Also government is getting the benefits of TSA as derived from its objectives. Among others it was recommended that in releasing funds prompt attention be given to priority sectors and the balance in the TSA at least 50% be invested in short term securities for government to get optimum financial benefit from the system

Keywords: TSA, Public financial mismanagement, CRA/CRF

1. INTRODUCTION

Treasury Single Account (TSA) was not reasonably known in Nigerian academic, economic and social arena until the year 2015 when its implementation started in earnest. In the history of economic and financial policies in Nigeria, TSA came into existence in 2012, when federal government of Nigeria (FGN) through; ministry of finance (MoF), Office of Accountant General of Federation (OAGF), and Central Bank of Nigeria (CBN) came up with the policy.

According to Bako, Godwin, and Tanzamadu (2017), in the pre TSA era FGN incurred unnecessary cost of borrowing while some of the Ministries, Departments and Agencies' (MDAs) accounts with deposit money banks (DMBs) were full of

idle cash. This was as a result of multiple numbers of MDAs accounts put at more than 10,000 some of which were not even known which make it close to impossible for FGN to know its actual cash position at a point in time. In an interview with economic confidential on 17th April, 2017 Accountant General of the Federation (AGF), Ahmad Idris, narrated that at point in time one university operated over 120 bank accounts with large balances some of which were hidden and missing. Maintaining these numerous accounts was not easy either, as every month government incurred over N4billion as cost of maintenance. This figure is so large to the extent that one will start doubting it.

Furthermore, VenturesAfrica (2012) stated that a senior government official told BusinessDay of a federal ministry in the country that deposited huge amount of money in a bank as time deposit and went back to the same bank and take loan at the same time. The interest charged the ministry by the bank was four times the interest it received from the bank. In some cases the funds meant for capital projects or recurrent expenditures would just be kept in a fixed deposit account to past the time when the funds are needed to pay for the approved expenditure.

This situation is not a problem specific to Nigeria but rather a problem to most of the emerging economies and low income countries as observed by Nweze (2016). These countries have fragmented accounting system for receipts and payments. The government funds are stock in various accounts unmarked and unnoticed while the government continues to borrow to finance its budgets.

There are no reasonable published studies on TSA issue in Nigeria because of it has just been recently introduced. The few that may exist are not available to the reach of many including the author of this study. This study came up to lay foundation for future studies on TSA by explaining the term in details, and also to examine the TSA as an instrument for public financial management in Nigeria.

2. LITERATURE REVIEW

Meaning of TSA

CBN (2016) states that, Treasury Single Account (TSA) initiative is the operation of a unified structure of Government Bank Accounts, in a single account or a set of linked accounts for ALL Government payments and receipts. According to Pattanayak and Fainboim (2010), TSA is a unified structure of government bank accounts that gives a consolidated view of government cash resources. Bassey (2016) sees TSA as a public accounting system using a single account, or a set of linked accounts by government to ensure all revenue receipts and payment are done through a consolidated revenue account (CRA) at apex bank in a country.

TSA is a bank account or a set of linked accounts through which the government transacts all its receipts and payments. The principle of unity follows from the fungibility of all cash irrespective of its end use. While it is necessary to distinguish individual cash transactions for control and reporting purposes, this purpose is achieved through the accounting system and not by holding/depositing cash in transaction specific bank accounts. This feature permits the treasury to separate management of cash from control at a transaction level.

TSA is an account created by government that serves as unvarying account for the use of all MDAs. It can also be seen as an account that serves as a flat form on which government revenues are paid irrespective of the MDAs and through which all payments are made on behalf of government to beneficiaries.

Types and Models of TSA.

TSA can be operated under seven different headings. It is not only the names that differ but also the way and manner the accounts are operated (Bako, Godwin and Tanzamadu, 2017).

1. TSA main account: This is the treasury's account with the central bank, which consolidates the government cash position. It is the main treasury single account, when the treasury single account arrangement in a particular country consists of a set of linked accounts. Cash balances in all other linked account are swept into this account. In other word, all government receipts finally flow into, and all disbursement are made from this single account.
2. TSA subsidiary accounts or sub-accounts: These are not separate bank accounts per say (in the sense of holding individual cash balances), but as special sub-account within the main treasury single account. This is basically an accounting arrangement to group together a set of similar transactions and allow the government to maintain the distinct accounting identity or ledger of its budget organization (line ministries/agencies)effectively. A cash disbursement ceiling for each entity can be enforced against this ledger. Balances in this account are netted off with the treasury single main account for cash management purposes.
3. TSA transaction accounts: Sometimes, government bank accounts that are justified for retail transaction banking operations are opened separately and structured as transactions account. These separate transaction account could be opened for government entities that needs transaction banking services, but do not have a direct access to the treasury single main account or a

subsidiaries account, and or specific category of operation (e.g. special funds). A transaction account could take the form of a zero-balance account or an imprest account.

4. **TSA zero-balance accounts (ZBAs):** Where transactional accounts are necessary, these are generally opened on zero balance basis, i.e. at the end of the day cash balances in this account are swept back into the treasury single main account periodically (preferably daily). Such accounts opened in deposit money bank are used for disbursement or for collection of government revenue (particularly non-tax revenue). At the end of the day, all revenue collected would be deposited in the treasury single account. The deposit money banks would honor payment overnight. ZBAs have many similarity with special credit line arrangements, were budget agencies are provided spending credit towards the amount of payments. They can make within a specific period, to be reimbursed by the treasury single account in the central bank. ZBAs also has the benefit that it bypasses the normal inter-bank settlement process for each individual transaction which is often time consuming in developing, and ensures same-day settlement on a net basis for all receipt and payments through the accounts.
5. **TSA imprest accounts:** These transaction accounts can cash up to a maximum authorized amount and are recouped from time to time. Such account might be necessary in some cases, particularly when there is limited availability of inter-bank settlement facilities. However, the number of imprest account should be kept to a minimum and the strategy should be to progressively transform these accounts into zero.
6. **TSA transit accounts:** These accounts are not meant for day to day transacting banking operations of government units. A transit account simply serves as a transit for eventual flow of cash into the treasury single main account. Transit might be necessary for major revenue stream to monitor their collections and remittance by the banking system and to facilitate revenue sharing (formula-based sharing from a common pool of resources) between tiers of government in a federal system in line with constitutional provisions.
7. **TSA correspondent accounts:** A separate ledger account is opened for each correspondent. The correspondent entity has real time information on the balances it maintains in the treasury single account. There should be safeguards to ensure that each correspondent government is provided with the fund needed to implement its own budget in a timely manner. The central bank (which maintains the accounts in the TSA) has the obligation

to make payments to the extent of balances available in a correspondents account.

It is possible to have a TSA possessing qualities of two or more of the above mentioned types in use at a time depending on how it is tailored.

Centralized and decentralized TSAs are terms used to describe the models of TSA in use. Under centralized model, requests for payments are prepared by individual budget agencies and sent to a central treasury payment unit for control and execution. While under decentralized model, individual budget agencies process and make payments directly to suppliers and account for these transactions through a TSA system (Pattanayak and Fainboim (2010). TSA main account is necessary for the system to work. It is domiciled in CBN and it is called CRA or consolidated revenue fund (CRF).

Objectives of TSA

According to Pattanayak and Fainboim (2010), the primary objective of a TSA is to ensure comprehensive control over government cash balances. Other objectives are cost reduction when budget execution, making prompt payments of government expenses, up to date reconciliation between banking and accounting data, control and monitoring of funds allocated to government agencies and facilitating coordination with monetary policy implementation.

In Philippines, TSA aimed at; providing greater transparency in the Public Financial Management (PFM), gaining greater clarity to national financing needs and the management of the public debt, increasing fiscal savings (less transaction charges, more revenues), improving financial markets, and providing more accurate accounting and improved reporting, as contained in Executive Order no. 55 (2011) of the government of Philippines.

CBN (2016) stated that:

“TSA is primarily designed to bring ALL Government funds in bank accounts within the effective control and operational purview of the Treasury, in order to: Enthroned centralized, transparent and accountable revenue management; Facilitate effective cash management; Ensure cash availability; Promote efficient management of domestic borrowing at minimal cost; Allow optimal investment of idle cash; Block loopholes in revenue management; Establish an efficient disbursement and collection mechanism for Government funds; Improve liquidity reserve; and Eliminate operational inefficiency and costs associated with maintaining multiple accounts across multiple financial institutions”.

Based on the preceding views, the objectives of TSA can broadly be accommodated under two major headings; tackling public financial mismanagement and curbing the menace of corruption.

In Nigeria, the main objective is to check the menace of corruption in MDAs as concurred by BusinessDay (2017) and Thisday (2016). Public financial mismanagement and corruption in most cases occur simultaneously but sometimes differently. Corruption in this case occurs as deliberate public financial mismanagement with a motive of enriching oneself while public financial mismanagement may occur as a result of system inadequacies not deliberate. Using the set theory, public financial mismanagement is the universal set while corruption is a subset of the universal set (public financial mismanagement).

Benefits of Treasury Single Account.

The objectives of TSA give light of what should be expected as benefits to be derived as a result of its implementation. Among the plethora of the benefits are: It allows complete and timely information on government cash resources, Improves appropriation control, improves operational control during budget execution, Enables efficient cash management, Reduces bank fees and transaction costs, Facilitates efficient payment mechanisms, Improves bank reconciliation and quality of fiscal data, and Lowers liquidity reserve needs (Garbade, John, and Paul, (2004), and Pattanayak and Israel (2010)). Last but not the least it serves as a tool for checking the menace of corruption.

3. MDAs Participation in TSA policy

Participation of MDAs in TSA has been increasing and encouraging as can be seen from the table below. At inception in 2012 only 93 MDAs were enrolled as participant but with passage of time in 2016 the figure increase geometrically to 976 as participants.

Table 3.1 The participation of various MDAs for different years since its inception in Nigeria.

S/N	No. of MDAs	YEAR	Percentage increase
1.	93	2012	-
2.	225	2013	141.94%
3.	345	2014	53.33%
4.	706	2015	104.64%
5.	976	2016	38.24%

Source: Adapted from National Bureau of Statistic (2015)

Laws and guidelines strengthening TSA in Nigeria.

- i. Section 80 (1) and 162 (1) of the 1999 constitution of the federal republic of Nigeria, 1999 (as amended) was clear on this issue when it says;

“all revenues or other monies raised or received by the federation (not being revenues or other monies payable under this constitution or any Act of the national Assembly into any other public fund of the federation established for a specific purpose) shall be paid into and form one consolidated revenue fund of the federation, (CRF)” (Section 80(1)).

“the federation shall maintain a special account to be called “the federation account” into which shall be paid all revenues collected by the government of the federation, except:

- The proceeds from the personal income tax of the personnel of the armed forces of the federation ;
- The Nigerian police force;
- The ministries or department of government charged with responsibilities for foreign affairs and
- Resident of federal capital territory Abuja (Section 162(1)).

- ii. Fiscal responsibility acts 2007 placed statutory obligations on federal, state and local government to commit to transparent fiscal, budget, practices and economic objectives that can be evaluated overtime.

- iii. MDAs, Banks and other stake holders are to be guided by CBN (2015) and OAGF guidelines for compliance with TSA in the circular OAGF/CAD/026/V.1/253 of 19th march, 2015, as follows;

- a. All MDAs shall provide payers with details of receipt payable to the government. Account details of MDAs have been configured in the CBN payment gateway for this purpose.
- b. All payers shall make payment into the Consolidate Revenue Fund (CRF) or other designated account in CBN through any branch of DMBs or electronic payment channels using the CBN payment gateway.
- c. MDAs shall provide the required services to the payers only after confirmations of payment into the CRF or the agencies designated accounts in CBN as applicable.
- d. All MDAs are to keep cashbook/memorandum register where all receipts are recorded and thereafter, prepare and submit return to the Office of the Accountant General of the Federation on monthly basis
- e. MDAs are to liaise with the settlement center in the office of the accountant general of the federation for any query, report or updates on collections made on their behalf.

MDAs categorization and some exemptions on TSA implementation in Nigeria.

To show the extent of MDAs involvement in TSA, OAGF made some categorizations and exemptions as indicated in the below.

Table 3.3 Operating accounts and Exemptions of Dividend Generating MDAs

S/N	CATEGORY	EXAMPLES	REMARKS
I.	MDAs fully funded through the national budget	All ministries, relevant department and agencies	All receipts to go the CRF/TSA
II.	MDAs not funded through the national budget but generate additional revenue	Teaching hospitals, medical centre, federal universities, polytechnics, college of education etc.	Collection action to be maintained in CBN
III.	MDAs not funded through the national budget but expected to pay operating surplus to the CRF	CAC,NPA, NCC, FAAN, NCAA, NIMASA etc	Collection account to be maintained in the CBN
IV	MDAs that are funded from the federation account	NNCPC, FIRS, custom service, DPR etc	All FAAC and CRF receipt to be paid into the designated account in CBN respectively.
V	Agencies funded through the special accounts	NSC, RMRDC, PTDF etc.	Collection account to be maintained in the CBN
VI	MDAs with revolving funds and project account	Drug revolving fund, fertilizer revolving fund, sure-p etc	All revolving fund and project account to be kept in CBN
VII	Profit oriented public corporations or business enterprises	BOI, NEXIM, BOA, Transcorp Hilton etc.	Policy not applicable

Source: OAGF circulars to CBN (2015)

In addition to table 3.3 above, OAGF shows that, the FGN has given exemptions from TSA to thirteen (13) of its agencies. This was contained in a circular referenced as FD/LP2015/C/ADC/20/1/DF dated September 14, 2015. These agencies fall under category VII in the table above, and they are primarily

profit oriented business required to pay dividend to the federal government. These entities include:

1. Power Holding Company of Nigeria.
2. Bank of Industries
3. Nigeria Railway Corporation
4. Federal Mortgage Bank of Nigeria
5. Nigerian National Petroleum Corporation
6. Bank of agriculture
7. Niger Delta Power Company/National Integrated Power Project
8. National Communication Satellite Limited
9. Galaxy backbone limited
10. Ajaokuta steel company limited
11. Nigeria export-import bank
12. Urban development bank
13. Transcorp Hilton hotel.

With regards to NNPC, however, the AGF circular addressed to the Director Banking and Payment System Department of the CBN stated that the National Petroleum Investment Management Services (NAPIMS) being a category four agency under the NNPC remains under covered from the TSA scheme as it is funded from the federal account. All other business units of the NNPC that are reclassified as profit oriented shall be exempted from the TSA scheme as they are required to pay dividend to the federal government(OAGF circulars to CBN, 2015).

TSA in other countries

TSA is a policy used by many countries all over the world for effective and efficient public financial management. TSA is in use in Asia, Latin America, Europe, and Africa.

Table 3.4 TSA in other countries

S/N	Country	Monetary Authority	Account Name(s)	Agency in Charge of the Account	Coverage (Federal, States, Local Authority, and MDAs)	Degree of Centralisation	Role of DMBs
1.	Australia	Reserve Bank of Australia (RBA)	Official Public Account (OPA) and Official Consolidate Receipts	Department of Finance and Administration (DFA)	National government	A mix of centralized and decentralized system	DMBs are involved in making payments

			Account (OCRA)				
2.	Brazil	Central Bank (BACEN)	TSA	National Treasury Secretariate (STN)	Only Federal Govt. entities (each state has its own TSA)	Fully centralized system	DMBs are involved in collection and payment on behalf of government
4.	Columbia	Banco de la Republica (BR)	TSA	Banco de la Republica (BR)	National government, but does not include the public establishments	Fully centralized system	The revenue collection and disbursements are done through a number of DMBs
5	France	Banque de France	TSA	Agence France Trésor (AFT), which is an agency of the French Treasury	National, Regional, Local govt. and quasi govt.'al levels	Fully centralized system	No involvement of DMBs
6	Georgia	Central Bank	TSA	Central Bank	National govt. and social security funds	Fully centralized system	Some involvement of DMBs
7.	India	Reserve Bank of India		Reserve Bank of India	Federal and State governments	A mix of centralized and decentralized system	Revenue collection and payment disbursements are mainly conducted through DMBs (both State-owned and private).
8.	Indonesia	Bank of Indonesia	TSA	Ministry of Finance, DG Treasury	National government	Fully decentralized system	
9.	Kyrgyz Republic	Central Bank	TSA	Regional Treasury Offices (RTOs)	National and subnational govt.	A mix of both centralized and decentralized system	Some involvement, with cash disbursement accounts opened with agent DMBs
10.	Moldova	National Bank of Moldova (NBM)	TSA	National Bank of Moldova (NBM)	National government and social security	A mix of both centralized and	Some involvement, with DMBs providing

					funds	decentralized system	revenue collection and payment services
11.	New Zealand	Reserve Bank of New Zealand (RBNZ)	Crown Settlement Account (CSA)	Reserve Bank of New Zealand (RBNZ)	National	Fully centralized system	DMBs provides retail/transaction banking services
12.	Nigeria	Central Bank of Nigeria (CBN)	TSA/CRA/CRF	Federal Ministry of Finance/Office of Accountant General of the Federation	Federal MDAs	Fully centralized system	Involvement only in collection and disbursement of funds
13.	Peru	Central Bank (BCRP)	TSA	Banco de la Nación, (BN) the main public commercial bank	National government	A mix of centralized and decentralized system	Full involvement
14.	Russian Federation	Central Bank of Russian Federation (CBRF)	TSA	Regional Treasury Offices (RTOs)	National government	Fully centralized system	Almost no involvement
15.	Sweden	Central bank (Riksbank)	SCR	Debt Office (DO)	Central/national government	Fully decentralized system	Heavily involved in providing transaction banking services
16.	U.K.	Central bank	TSA	Government Banking Services (GBS)	National government	Fully centralized system	Significant involvement
17.	U.S.A.	Federal Reserve Banks (FRBs)	Treasury General Account (TGA)	Federal Reserve Banks	Federal Govt.	Decentralized system	Some involvement

Adapted from Pattanayak and Fainboim (2010)

Many evidences revealed that TSA have been in use in varying degrees in other countries including Nepal, Vietnam, Ukraine, Dominican Republic, Mexico, Saudi Arabia, Italy, Croatia, Turkey, Philippines, Pakistan etc. (Oti, Igbeng, and Obim, 2016).

Challenges Posed by TSA in Nigeria

TSA full implementation in 2015 as directed by government posed many challenges to the MDAs, DMBs, and other stakeholders especially at the beginning. Majority of MDAs were not having adequate knowledge of how TSA will work. Many MDAs were taken by surprise to the extent that some of them were brought to a standstill due to moving away of all balances in their numerous accounts to CRA within few days.

Nigerian universities were part of MDAs that were badly affected at the beginning because they could not access their research grants and other funds from international donors. The Nation (2016), reported the vice chancellor of Federal University of Agriculture, Abeokuta lamenting that the TSA was impeding research while many several funds from international donors were diverted to other countries with friendly transfer guidelines.

Our DMBs were also badly wounded in the early days of TSA full implementation. It has been the norms that DMBs were getting cheap fund from MDAs at the expense of government for many years. Overnight they were asked to transfer the fund to CRA with the CBN and were also asked to transfer all remittances in favour of MDAs on daily basis henceforth. While talking to The Nation, the director banking operation, CBN, in less than a year of the full implementation of TSA about 15.4% (N2.67 trillion) of the total deposit taken by DMBs were transferred to CBN. The director added, had it been that the money were invested in treasury bills at the current rate of 14% the fund could have earned N374 billion for the DMBs.

Many MDAs experienced difficulties in accessing their funds because of the new development in place which many were not familiar with. And some challenges came from the flat form that enables the system to work with time it will be perfected. All these challenges were natural as it is the price which must be paid, for the change we were yearning for.

4. DISCUSSIONS

Many scholars believed that TSA has become a useful model all over the world that could be used to establish centralized control over government revenue which will result in effective cash management. It enhances accountability, remove secrecy, and enables government to know how much is accruing to it on a daily basis (Larson 2007, Oti, Igbeng, and Obim, 2016, Pattanayak and Fainboim 2010, Nweze 2016, Basse 2016, VenturesAfrica, 2012,).

Even though, the objectives of adopting TSA world over is virtually the same with differences on the area of emphasis let's consider the objectives as it applies to Nigerian situation. Recently, AGF revealed that as at March ending, 2017 the balance in TSA was over N7 trillion despite the recession that Nigeria experienced.

The money belongs to the MDAs but government knows their accounts balance, can access it and is in control at any point in time. The government gave the figure as N2.67 trillion as at March, 2016.

TSA resulted in cutting cost that could have been incurred in maintaining thousands of accounts belonging to MDAs. The cost was put at N4 billion monthly by OAGF as mentioned earlier. Ocheni (2016) stated that TSA cuts the debt servicing costs, eradicates financial misappropriation, and enhances the transparency of government's banking arrangements through moving balances to the main account daily. Besides TSA, government also instituted the Government Integrated Financial Management Information System (GIFMIS), Automated Accounting Transaction Recording and Reporting System (ATRRS), among others to ensure public financial management.

The issue of leakages and idle cash balances are now minimized to a reasonable extent. Accounts fragmentation for government revenues, incomes and receipts, which in the recent past meant the loss or leakages of legitimate income meant for the government is now history (Bako, Godwin, and Tamanzadu, 2017). Every MDA is allowed to access TSA in financing its approved budgeted expenditure. This was not the case before, where MDAs would be waiting for funds from MoF which may take time or not even come. TSA makes our DMBs more competitive by denying them using cheap or in some cases costless public funds for their private business operations. Now DMBs don't have an alternative other than to compete for deposits from their teaming customers across the country at a competitive price.

It will also serve as a dependable source of revenue to the government. Imagine the government invests half of the TSA balance i.e. N3.5 trillion in an instrument similar to Treasury bill at 14%. The return that will go to the government within three months will be a mind-blowing sum of N490 billion. Even if some MDAs were investing their funds, what goes to government coffers was insignificant as in most cases the government officials in charge connived with DMBs to enrich themselves as confirmed by BusinessDay (2017). Last but not the least, all corruption temptations and tendencies are tamed by adopting TSA.

5. CONCLUSION AND RECOMMENDATIONS

It has been unanimously agreed that TSA is a tool that can be used to manage public financial resources at the cheapest cost. Transparency, accountability, availability, efficiency, economy, liquidity, clarity, and accuracy can be ensured using TSA. Considering the challenges TSA posed which revolve around delay in accessing funds, it is still better up than siphoning the funds to private coffers through maintained secret accounts with DMBs. Countries all over the world are

using TSA in various degrees of centralization and decentralization with time Nigerian brand will also be efficient, effective and well understood.

It is recommended that government should be investing at least 50% of TSA balance in short term (3 – 6 months period) financial instruments within or outside the country to get more income on the fund. National assembly should come up with a law that will make it compulsory for all the three tiers of government (Federal, State, and Local) to adopt TSA comprehensively.

In releasing funds, prompt attention should be given to priority sectors like health, education, security, power, and agriculture.

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IMPACT OF NON-OIL EXPORTS ON ECONOMIC GROWTH IN NIGERIA: AN ERROR CORRECTION MODELING APPROACH

MUHAMMAD, Bello Abubakar¹ and IBRAHIM, Murtala²

Department of Economics¹, Department of Management²
School of Management and Information Technology, Modibbo Adama University
of Technology-Yola, Adamawa State, Nigeria.
Corresponding Author¹: Email: hardo20450000@yahoo.com

Abstract

This paper empirically investigates the impact of Non-oil exports on economic growth in Nigeria. Secondary data from CBN bulletin covering of 1986 to 2015 were used. The properties of time series variables were examined through the application of serial correlation test, Heteroskedasticity test, Augmented Dickey-Fuller technique, Jan-hansen co-integration test and Error Correction Method. The results of the OLS revealed that there is positive relationship between non-oil exports and economic growth, while inflation and exchange rate show a negative relationship with the economic growth in Nigeria. Moreover, this paper found that, there is an evidence of longrun relationship between non-oil exports and economic growth with intended effect of inflation and exchange on both non-oil exports and economic growth in Nigeria as indicated by the error correction method. The paper recommends that effort should be geared towards increasing the performance of non-oil export as well as reduces the level of inflation and ensures exchange rate stability as a way of achieving economic growth in Nigeria.

Keywords: Non-oil, Export, Exchange Rate, Error Correction, and Economic Growth

1. INTRODUCTION

For a country to achieve economic development in terms of increase in GDP and generation of revenue, it needs to engage in export activities. In the case of Nigerian economy, it engages in oil and non-oil export. This study, takes a look at the non-oil export. Non-oil exports are the products which are produced within the country in the agricultural, mining, and quarrying and industrial sectors that are sent outside the country in order to generate revenue for the growth of the economy excluding oil product. These non-oil export products in Nigeria are coal, cotton, timber, groundnut, coca, beans, etc. Today, as in the past, the growth of Nigeria economy through non-oil sector remains partly dependent upon increasing productivity of the agricultural sector.

Helleiner (2002), state that no matter how much development and structural transformation a country achieved, agriculture will remain its relative dominance in the economy for many decades to come. Precisely, it is from agricultural exports that the economy has received its principal stimulus to economic growth. Agricultural sector can assist through the exportation of principal primary commodities which will increase the nation's foreign earnings and which can be used to finance a variety of development projects. The growth of the agricultural sector can make a substantial contribution to the total revenue, as well as having some implications for intersectional terms of trade (Sanusi, 2010). Also in the area of capital formation, the savings generated in this sector can be mobilized in development purposes, while increase in rural income as a result of increasing agricultural activities can further stimulates the product of the modern sector (Ikepeazu, 2000).

Nigeria remained a net exporter of agricultural products between 1960 and 1970. Goods exported include palm oil, palm kernel cotton, groundnut, etc; agriculture through export of non-oil products has a rosy record contribution up to 80% of the gross domestic product and providing employment for over 70% of the work population. But recently there has been a steady decline in terms of agricultural product, to export and an abandonment of sector by a large percentage of the workforce (Ikepeazu, 2000))

Agricultural decline is as pathetic as its impact on industry that relied heavily on the sector for raw material. Thus, the decline comes with surge of revenue from oil (oil export). But the discovery of crude oil alone cannot be held responsible completely for the misfortunes or decline of the agricultural sector. The policy instruments put in place by successive government were more of lip- service than concrete action (Akinole, 2001).

The question raised in this paper is to what extent has the non-oil exports contribute to the overall economic growth in Nigerian?.The objective of this paper is to empirically investigate the impact non-oil export on economic growth in Nigeria with a view to make policy contribution that will help policy makers in the country.

2. LITERATURE REVIEW

Theoretical Literature

According to Ricardo's theory of comparative advantage, even if a nation has an absolute cost disadvantage in the production of both goods, there still exists a basis for mutually beneficial trade. The less efficient nation should specialize in the production and exportation of the good in which it is relatively less inefficient (where its absolute disadvantage is least) while the more efficient nation should specialize in the production and exportation of the good in which it is relatively more efficient (where its absolute advantage is greatest). This theory proved to be better than Smith's absolute advantage theory because it is possible for a nation not to have an absolute advantage in anything but it is not possible for one nation to have a comparative advantage in everything and the other nation to have a comparative advantage in nothing. (David Ricardo, 1817)

According to Smith Absolute Advantage theory, each nation benefits by specializing in the production of the good that it produces at a lower cost than the other nation, while importing the good that it produces at a higher cost. This will increase specialization, world output and the gains from trade (Carbaugh, 2004). According to this theory, foreign trade is a positive-sum game, because both countries involved will benefit from the trade. Thus, a nation need not gain at the expense of other nations, as all nations could gain simultaneously (Sylvester & Aiyelabola, 2012).

In economics a country's factor endowment is commonly understood as the amount of land, labor, capital, and entrepreneurship that a country possesses and can exploit for manufacturing. Countries with a large endowment of resources tend to be more prosperous than those with a small endowment, all other things being equal. The development of sound institutions to access and equitably distribute these resources, however, is necessary in order for a country to obtain the greatest benefit from its factor endowment as proposed by Heckscher- and Ohlin model (Wikipedia, 2017).

Empirical Literature

Many empirical studies have been carried out to evaluate the role of non-oil exports on economic growth in Nigeria. Most of these studies employed cross sectional

analysis of inter-country data on non-oil exports and Gross Domestic Product (GDP). However, this paper takes a different Dimension by evaluating the impact of non-oil exports on economic growth in Nigeria.

Table 2.1: Summary of Empirical Literature

Author and Year	Topic	Methodology	Findings of the studies
Fajana (1979)	Relationship Between Trade and Economic Growth in Nigeria		The result indicates a positive and strong relationship between output changes and hence provides empirical support for this thesis that trade has been an important factor in Nigeria's growth.
Oni (1986)	Impact of Palm oil Export on Economic Growth in Nigeria	Spearman Correlation Analysis.	This new approach provides information on the demand condition that might exist in each of the countries importing Nigeria palm oil.
Akinole (2001)	Prospects for Nigerian , groundnut, coca and palm oil in the expanded economic commodity	Ordinary Least Square (OLS) Regression Technique.	He said that there exist an effective competition between Nigeria's groundnut and soya bean in other countries. As a result, Nigeria should shift from the export of groundnuts by groundnut oil
Olayide and Dupe (2001)	Determining of elasticity of Demand for the non-oil export Nigeria	Linear correlation co-efficient analysis	Variables for a measure of export control showed a positive sign, which means the higher export of these products.
Asanebi (2007)	Performance of Non – oil Sectors Exports in Nigeria	Linear Correlation Co-efficient Analysis	The research identified that primary commodities dominates Nigeria's basket of non-oil export. Period of research covered 1990 – 2000.

Okoro (2009),	Impact of non – oil export the Nigeria economy	Using econometric	He states that a very strong link exists between these three sectors and other sectors of the economy
Ogbonna (2010)	Contributions of the non – sector export to the GDP in Nigeria	Ordinary Least Square (OLS) Regression Technique	there is general need for policy frame work, otherwise, the non–oil sector will continue to make less contribution to the country’s balance of payments their research work however covered the period from 1981 – 2000.
Ozoudo (2010)	An Investigation into dominance of petroleum/crude oil in the export sector’s export	Econometric Method	He as well, recorded that the inefficient performance of the non – oil marketing of board deterred progress of the non – oil sector. His research covered the period from 1991 – 2008.
Nageri, K. I., et al(2013)	An Empirical Study Of Growth Through Trade: Nigeria Evidence	OLS Regression Method Of Statistical Analysis	The finding shows that trade contribute positively to economic growth but Nigeria’s trade policies, and implementation is still not growth friendly.
Usman, O. A. (2009).	Non-Oil Export Determinant and Economic Growth Nigeria.	Multi-Linear Regressions Analysis	The outcome of the analyses revealed that Nigeria non-oil export as some significant contribution on our economic growth

Mkpado, M. (2013).	Service Trade and Non-Oil Export in Nigeria.	Descriptive Statistics, Correlation Analysis and Regression Analysis.	Significant correlations existed between the total value of service trade and all the types of service trade except with other service trade value. Road network, government (domestic) capital expenditure on services, agricultural credit and domestic service output (service Gross Domestic Products GDP) positively determine exportable services.
Oruta, I. L. (2015).	Impact of Non-oil Export on Economic Growth In Nigeria	OLS Regression Method	It was discovered generally that non-oil export has a significant impact on economic growth in Nigeria

Source: Author's Computation

3. METHODOLOGY

The paper make used of diagnostic test of serial correlation, Heteroskedasticity and unit root test to test the reliability of the data. Cointegration test, error correction model and ordinary least square tests were used to test the reliability of the data in measuring the impact of non-oil sector on the Nigeria economy. Data in the study were annual time secondary data from the CBN statistical bulletin from 1985 to 2015.

The model specification helped in verifying the impact of non-oil export earnings on the GDP for the period under consideration. According to the model and for the purpose of this study, the GDP of the nation depends on the receipts from non-oil commodity exports and the exchange rate. The research model is set explicitly in double-logarithmic form. The functional form of the model is:

$$GDP = f(NOX, INF, EXRT)$$

The research model is set explicitly in double-logarithmic form, and they are as follows:

$$LOGGDP = \beta_0 + \beta_1 LOGNOX + \beta_2 LOGINF + \beta_3 EXRT + e_1$$

Where:

GDP = Gross Domestic Product

NOX = Non-Oil Export

INF = Inflation Rate

EXRT = Exchange Rate

β_0 = Constant Intercept (Variable)

β_1 = Coefficient of Non-oil Export

β_2 = Coefficient of Inflation Rate

β_3 = Coefficient of Exchange Rate

LOG = Logarithm

e = Error term

4. Data Presentation and Analysis

Diagnostic Test

Serial Correlation Test

This test is aimed at ascertaining whether serial autocorrelation occur in the model. To achieve this it's assumed that the values of the random variable (ut) are temporarily independent by employing the technique of Durbin Watson (dw) Statistics.

Table 4.1: Test for Serial Correlation

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.028232	Prob. F(2,25)	0.3723
Obs*R-squared	2.280192	Prob. Chi-Square(2)	0.3198

Source: Author's Computer Ussind E-views 8

The serial correlation test in table 4.1 shows that there is no presence of serial correlation as indicated by high probability value of 0.3723. This implies that the null hypothesis of no serial correlation is accepted at 5 % significant level.

Heteroskedasticity Test

This test allow for a range of specifications of heteroskedasticity in the residuals of the equation. Ordinary least squares estimates are consistent in the presence of heteroskedasticity, but the conventional computed standard errors are no longer valid. If there is an evidence of heteroskedasticity, robust standard error option is use in correcting the abnormality of the error term.

Table 4.2 :Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	5.041925	Prob. F(3,26)	0.0069
Obs*R-squared	11.03379	Prob. Chi-Square(3)	0.0115
Scaled explained SS	19.28739	Prob. Chi-Square(3)	0.0002

Source: Authors Computation using evIEWS 8

The null hypothesis is rejected that the residual does not have heteroskedasticity since the probability value and the R-square are less than 5%. Therefore, the residual are normal distributed in the estimation.

Unit Root test

This test is adopted to test the stationarity of the variables under investigation. The series are tested at level, first and second difference through the technique of Augmented Dickey

Fully test. Data is said to be stationary when its probability value is less than 5% (0.05).

Table 4.3: Unit Root Test

Variables	Critical values at 1 %	Critical values at 5 %	Critical values at 10 %	lags	Other of difference	t-statistics	Probability
GDP	-4.327979	-3.580623	-3.225334	5	I(1)	-5.233788	0.0012
IFN	4.394309	-3.612199	-3.243079	5	I(1)	-4.498153	0.0023
NOX	-4.327979	-3.580623	-3.225334	5	I(1)	-8.653476	0.0000
EXRT	-4.327979	-3.580623	-3.225334	5	I(1)	-5.001159	0.0021

Source: Author Computation Using EvIEWS 8

From the result of the Stationarity test conducted in the Table 4.3; it reveals that all the variables under investigation are found to be stationary at first difference I(1) at 1% and 5% level of significance. Hence, this provides the bases for conducting cointegration test to determine the long term relationship between the variable under investigation

Johansen Cointegration

This test was adopted to test the longrun relationship between dependent and independent variable and it is precondition for testing error correction model.

Table 4.4: Cointegration test

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob. **
None*	0.521195	27.59540	29.79707	0.0879
At most 1*	0.219289	6.974443	15.49471	0.5806
At most 2	0.001535	0.043025	3.841466	0.8356
At most 1	0.668724	59.74390	47.85613	0.0026

Trace test indicates 2 cointegrationeqn(s) at the 0.05 level

Source: Author Computation Using Eviews 8

From table 4.4, the result the result of cointegration tests it shows that there are two cointegrating equation at 5% (0.05) level of significant.

Error Correction Model (ECM)

This model is employed in order to determine the speed of adjustment in the disequilibrium of the economy. That is, how long will it take for the economy to restore its previous disequilibrium in the long run. The condition for ecm is that it's coefficient has to be negative, less than one and significant.

Table 4.5: Error Correction Model Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	504.8794	862.9113	0.585088	0.5693
D(GDP(-1))	-0.999744	0.313938	-3.184525	0.0079
D(GDP(-2))	0.005484	0.155582	0.035250	0.9725
D(GDP(-3))	-0.935859	0.202471	-4.622200	0.0006
D(NOX(-1))	27.08814	19.57335	1.383929	0.1916
D(NOX(-2))	92.46164	17.72551	5.216303	0.0002
D(NOX(-3))	117.6879	22.14567	5.314263	0.0002
D(INFL(-1))	27.84088	37.99016	0.732844	0.4777
D(INFL(-2))	19.42322	33.34786	0.582443	0.5711
D(INFL(-3))	12.01421	34.76626	0.345571	0.7356
D(EXRT(-1))	-14.53093	38.31276	-0.379271	0.7111
D(EXRT(-2))	-7.904224	40.59078	-0.194730	0.8489
D(EXRT(-3))	19.99657	39.67837	0.503966	0.6234
ECM(-1)	-0.87541	24.59266	-0.03559	0.0144

Source: Author Computation Using Eviews 8

The results of the ECM estimation in table 4.5 Shows, that all the parameter estimates are appropriately signed and in conformity with the apriori expectation. The estimated coefficient of the error correction term (-0.88) is significantly different from zero at 5 per cent level significance and with the appropriate negative sign. This suggests the validity of long- run equilibrium relationship among the variables. The estimated coefficient value of -0.88 suggests that the system (economy) corrects its previous period disequilibrium in the long run by about 88 percent speed of adjustment and that is considered to be a high speed of adjustment of economy form disequilibrium in the long run.

Ordinary Least Square Test

The result of the ordinary least square revealed that there is positive relationship between GDP, and non-oil export. While, there is negative relationship between GDP exchange rate and inflation. This implies that 1 unit change in non-oil export would increase GDP by 76.8 percent, where as 1 unit change in inflation would decrease GDP by 21 percent and 1 unit change in exchange rate would decrease GDP by 6.4 percent. The value of intercept or constant of 3.966748 shows the rate at which GDP changes when non-oil, exchange rate and inflation are held constant. The coefficients of all independent variables non-oil export and inflation are rightly signed and are consistent with the theoretical expectation of this study.

Table 4.6: Ordinary Least Square Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.966748	0.860346	4.610642	0.0001
LOG(NOX)	0.768029	0.068696	11.18014	0.0000
LOG(INFL)	-0.214016	0.224577	-0.507693	0.6158
LOG(EXRT)	-0.064719	0.096864	-0.668146	0.5090
R-squared	0.812263	Mean dependent var		8.617446
Adjusted R-squared	0.803872	S.D. dependent var		1.963636
S.E. of regression	0.797932	Akaike info criterion		2.481052
Sum squared resid	17.19077	Schwarz criterion		2.621172
Log likelihood	-34.21578	Hannan-Quinn criter.		2.525878
F-statistic	74.31298	Durbin-Watson stat		1.041123
Prob(F-statistic)	0.000000			

Source: Author Computation Using Eviews 8

The coefficients of non-oil and constant are statistically significant at 1 per cent level as indicated by probability value of 0.0000. Thus, the null hypotheses were rejected. But exchange rate, inflation is statistically insignificant at 5 per cent level. Because its probability values of 0.5090, and 0.6158 are greater than 0.05 per cent.

Therefore, the null hypothesis is accepted. The F-statistic 74.31298 which is a measure of the joint significance of the explanatory variables is found to be statistically significant at 1 per cent level as indicated by the corresponding probability value of 0.000000. Hence, we reject the null hypothesis which implies that our independent variables are simultaneously insignificant.

The R^2 of 0.812263 (81.2%) implies that about 81.2 percent total variation in GDP is explained by the explanatory variables. Coincidentally, the goodness of fit of the regression remained high after adjusting for the degree of freedom as indicated by the adjusted R^2 ($R^2 = 0.803872$ or 80.3%). The Durbin-Watson statistic of 1.041123 in the result is observed to be greater than R^2 0.812263 indicating that the model is not spurious. This implies that the model can be used for policy purpose. The result of Durbin-Watson statistic 1.041123 is less than two which is a sign of serial correlation, but after conducting serial correlation test in table 4.1, the variables were found to have no evidence of serial correlation.

Major Findings

► Serial correlation test show no presence of serial correlation as indicated by the p-value and the r-square, Heteroskedasticity test also indicates that the residual does not have heteroskedasticity as they are normally distributed and Augmented Dickey-Fuller technique shows the unit root property of the series and all variables are found to be stationary at first difference.

► Jan-hansen co-integration test indicates that there is long run relationship between the dependent variable and the independent variables. While Error Correction model was also used in testing the speed of adjustment in the disequilibrium of the economy and the estimated coefficient suggests that the economy corrects its previous period disequilibrium in the long run.

5. CONCLUSION AND RECOMMENDATIONS

The major objective of this paper is to examine the impact of non-oil export on Nigerian economy from 1986-2015. Secondary data were source from CBN bulleting. The result of this study shows that increase in non-oil export is affecting GDP positively over the years in Nigeria while inflation and exchange rate affect GDP negatively. Meanwhile, non- oil export has significant and positive impact on GDP in Nigeria for the period under review, while inflation and exchange rate has insignificant and negative impact on GDP. However, all the variables under investigation are found to be simultaneously significant in explaining GDP for the period under review. Therefore, this shows that the model is fit for policy making

after testing the variables. Base on the findings in this research paper, it recommend that effort should be geared toward increasing the performance of non-oil export as well as reduce the level of inflation and ensure exchange rate stability as a way of increasing its contribution on economic growth in Nigeria.

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EFFECTS OF BOARD CHARACTERISTICS ON FINANCIAL REPORTING QUALITY OF QUOTED INSURANCE COMPANIES IN NIGERIA

Ismaila Olotu Abdullahi¹, Abdulkarim ShuaibuAlhassan² and Hassan Musa³

^{1,2&3}**Department of Accounting, Nasarawa State University,**

Keffi, ismailaolotu@nsuk.edu.ng, abdulkarimalhassan@yahoo.com musahassan72@gmail.com

Abstract

The governance structure of firms called for closer attention when cases of corporate scandals around the globe became endemic. The quality of reporting also became an issue since whatever is done, the stakeholder may not know without proper reporting. This study examines the effects of, board characteristics on financial reporting quality of quoted insurance companies in Nigeria. The period covered by the study is 2004-2013. The sample of the study consists of 13 insurance companies quoted on the Nigerian Stock Exchange. The Modified Dechow and Dichev Model was used as a measure of Financial reporting Quality. Board characteristics used include board independence, board size and board meetings. Multiple regression analysis was used. The results revealed that board independence and board size have positive and statistically significant effect on financial reporting quality while board meeting has no significant effect on financial reporting quality. The study concludes that, board independence and board size are effective monitoring mechanisms in improving financial reporting quality of quoted insurance companies in Nigeria. The study therefore recommends that the size of the board of insurance companies should be closely monitored and that the current position of corporate governance code with respect to the ratio of non-executive directors to executive directors should be sustained.

Keywords: Board Characteristics, Board Size, Board Meetings, Board Independence, Financial Reporting Quality.

1. INTRODUCTION

Financial reporting is an expression of developments within an economic entity basically in the context of changes in its financial performance and financial position. The fundamental role of financial reporting is to inform various stakeholders to an economic entity about the financial condition of such an entity. On the basis of the information provided, stakeholders make more informed

decisions about existing and potential investment in the economic entity. Such information is contained in financial report prepared and presented by the entity concerned. While the importance of high quality financial reporting has been recognized, it is disturbing when recent corporate scandals at international and local settings suggest that financial reporting quality needs further scrutiny. There are concerns about quality of financial reporting in Nigeria. Mainoma (2003) observed that there exist variation in reporting patterns in contents of balance sheets and value added statements of quoted companies in Nigeria. This calls to question the issue of reliability and comparability of financial statements which are attributes of financial reporting quality.

There are theoretical views that suggest that board characteristics play important roles in monitoring/preventing managers from opportunistically manipulating earnings thus improving financial reporting quality. In corporate settings, board of directors are considered as internal governance mechanism. They are expected to monitor and control the behaviours of managers to ensure they act in the interest of the shareholders and protect their interest. To achieve these, the board is required to be independent. In addition, the size of the board constitute an important factor that influences the effectiveness of board oversight duties (Al-Dhamani & Ku-Ismael, 2013). Mohamad, Rashid and Shawtary (2010) argued that small boards have the advantage of being easy to coordinate, quicker in decision making, less likely to oppose innovations thus more efficient carrying out their functions. Furthermore, board activity as measured the number of board meetings is a good monitoring mechanism. Menon and Williams (1994) pointed out that boards that do not meet or meet only a few times are unlikely to be effective monitors. Acknowledging the fact that there exist evidence on the extent to which board characteristics affect financial reporting quality in developed and emerging economies alike covering different samples and time-periods, the results of the findings are mixed. Thus to what extent do board characteristics affect financial reporting quality of quoted insurance companies in Nigeria? The focus of this study therefore is to examine the effect of board characteristics on financial reporting quality of quoted insurance companies in Nigeria.

2. LITERATURE REVIEW

On board size, Davila and Watkins (2009) found that if the size of the Board is very small, the monitoring of the management team is smaller too. In this sense, managers are likely to be tilted towards greater discretion in receiving higher remuneration, greater chance of earnings management and are more prone to information asymmetry (Azofra, Andre & Lopez, 2005; Brick, Palmon & Wald,

2006). Thus, a larger size of board assumes a better supervision of the management team and a higher quality of corporate decisions (Pearce & Zahra, 1992).

Chin, Firth and Kim (2006) found a negative relation between the size of the board and earnings management. This implies that the larger the size of the board, the lesser the case of earnings management thus higher financial reporting quality. Similarly, Fodio, Ibikunle and Oba (2013) examined the relationship between corporate governance mechanisms and reported earnings quality in listed Nigerian insurance firms. The study found that board size is negatively associated with earnings management. This indicates that larger boards are more effective in monitoring earnings manipulation thus guaranteeing higher financial reporting quality. This finding is similarly to the findings in Yu (2008) which found that small boards are prone to inability to detect earnings management. In addition, Iraya, Mwangi and Muchoki (2015) examined the effect of corporate governance practices on earnings management and found that the relationship between earnings management and board size is negative and statistically significant. This also indicates that larger boards serve as effective monitoring mechanism of earnings manipulations by managers.

On the contrary, Jensen (1993), Yermack (1996) Abdulrahman and Ali (2006) found a positive relationship between board size and earnings management. This indicates to the fact that, the larger size of the higher the magnitude of earnings management. This can be explained by the fact that excessive size can be an obstacle for quick and efficient decision-making, due to problems of coordination and communication. Similarly, Santiago and Brown (2009) using a sample of 97 companies across Brazil, Chile, and Mexico and found a positive relation between the size of the board and earnings management. This indicates that with a larger size of board, the levels of monitoring of the management team decrease, so increasing the risk of expropriation by controlling shareholders and the propensity to the discretion of the board members to establish a higher level of remuneration and manipulate the results of companies for their own benefit (Thomsen, 2008; Gonza'lez, & Garcí'a-Meca, 2013).

Board independence is another important characteristic of a board that has been given attention in recent past. Extant corporate governance literature showed that independence is often considered as a substitute for transparency and disclosure of annual reports; it has often recommended that the number of external members in board of directors be greater than the owners, for there to be more oversight of management and to maximize the value of the organization (Zattoni& Cuomo

2010). This suggests that the degree of board independence is directly related to the quality of information that firms issues (Cheng & Courtenay, 2006; Zattoni & Cuomo 2010; Gonzá'lez, & Garcí'a-Meca, 2013). Also, corporate governance literature has affirmed that a greater degree of board independence provides more control over the development of company activities and a better defence of the issue of information as a mechanism to carry out processes of accountability to different groups of business interest, because the external directors are not linked to the management of the entity (Willekens, Bauwhede, Gaeremynck, & Van De Gucht, 2005; Karamanou & Vafeas 2005; Cheng & Courtenay, 2006; Gonzá'lez, & Garcí'a-Meca, 2013). Therefore, Board independence seeks fairness in the strategic decisions taken by the Board and effective monitoring of the decisions and activities of managers, thus ensuring transparency of information and proper image on the outside of organizations (Chen & Jaggi, 2000; Patelli & Prencipe, 2007). Furthermore, several studies provide empirical evidence relating to the role of external directors on the constriction of EM, documenting that a higher proportion of external directors, will mean greater and better quality of financial information issued by firms, so reducing the chances of earnings management (Davidson, Godwin & Kent, 2005; Garcí'a-Osma & Gill de Albornoz 2007; Garcí'a-Lara, Garcí'a-Osma & Penalava, 2009; Jaggi, Leung & Gul, 2009). On the contrary, Abdulrahman and Ali (2006) and Park and Shin (2004) did not find any evidence linking board independence and earnings management. This indicates that the independence of the board neither reduces nor encourages earnings manipulations by managers.

Another characteristic related to the Board of Directors is its activity, measured by the number of meetings. Adams (2003) and Garcí'a-Lara, Garcí'a-Osma and Penalava, (2009) suggested that the number of meetings is a good proxy for the directors' monitoring effort. Menon and Williams (1994) noted that boards that do not meet, or meet only a few times, are unlikely to be effective monitors. Ismaila (2013) argued that in order to meet their governance commitments in ensuring high quality and transparent reporting in annual reports, they need to be active by means of frequent meetings. It is possible that Boards that are more engaged in their duties take a more active stance in order to safeguard the quality of accounting information, so, in principle, a negative relation between the Board's activity and earnings management is to be expected (Gonzá'lez, & Garcí'a-Meca, 2013). In this sense, board activity is expected to improve financial reporting quality. Ismaila (2013), Iraya, Mwangi and Muchoki (2015), Vafeas (1999), Yatim, Kent and Clarkson (2006), established that the relationship between board meeting and financial reporting quality is positive and statistically significant. Similarly,

Gonza'lez, & Garcí'a-Meca, (2013) found a negative relationship between board meetings and earnings management. Their findings support the arguments that boards that meet frequently are likely to improve financial reporting quality.

Conversely, in assessing the relationship between board characteristics and financial reporting quality of oil marketing firms in Nigeria, Kantudu and Samaila (2015) found that the relationship between board meeting and financial reporting quality is negative although not statistically significant.

3. METHODOLOGY

Broadly speaking, the research design adopted in this study is ex-post facto research design. The period of this study is 2004-2013. The population of the study consists of all the 33 insurance companies listed on the first-tier securities market of the Nigerian Stock Exchange as at 31st December 2013. The choice of listed companies is based on the fact that data on them are mostly available and reliable in relation to non-listed companies. The sample size was determined using the following criteria:

- i. Company must be quoted on NSE on or before December, 2004.
- ii. Company must have financial statement published up to 2013 financial year.

At the end, only 13 companies were considered in the study.

The study used panel data mainly from secondary sources because it is a quantitative study and the basic data needed for analysis can be adequately and conveniently extracted from the annual reports and accounts of the sampled companies within the period of the study. These financial reports are obtained from Nigerian Stock Exchange. Panel regression analysis was employed. Financial reporting quality was proxied by the residuals of the Modified Dechow-Dichev (MDD) model while board characteristics used included board size, board independence and board meetings. The first model is to determine the residuals of the MDD model and the second model is the model for this study.

Model Specification

$$TCA = \beta_{0,j} + \beta_{1,j} CFO_{j,t-1} + \beta_{2,j} CFO_{j,t} + \beta_{3,j} CFO_{j,t+1} + \beta_{4,j} \Delta REV_{j,t} + \beta_{5,j} PPE + \varepsilon_{j,t} \dots 1$$

Where:

$TCA_{j,t}$ = Firm j's Total Current Accruals in year t determined as $\Delta CA_{j,t} - \Delta CL_{j,t} - \Delta Cash_{j,t} + \Delta STDebt_{j,t}$

$\Delta CA_{j,t}$ = Firm j's change in Current Assets between year t-1 and t

$\Delta CL_{j,t}$ = Firm j's change in Current Liabilities between year t-1 and t

$\Delta Cash_{j,t}$ = Firm j's change in Cash between year t-1 and t

$\Delta STDebt_{j,t}$ = Firm j's change in Short Term Debt between year t-1 and t

- CFO_{j,t} = Firm j's Cashflow from Operations in year t
- ΔREV_{j,t}= Firm j's change in Revenue between year t-1 and t
- PPE_{j,t} = Firm j's value for Property Plant and Equipment for year t
- β₀- β₅ = coefficients.
- ε_{jt} = Error term

The residuals from model 1 above represent the measure of financial reporting quality.

$$FRQ = \beta_0 + \beta_1 BSIZE_{jt} + \beta_2 BIND_{jt} + \beta_3 BMTNG_{jt} + \epsilon_{jt} \dots \dots \dots 2$$

- FRQ_{jt}= Financial Reporting Quality of firm j at time t
- BSIZE_{jt}= Board Size of firm j at time t, measured as the total number of directors
- BIND_{jt}= Board Independence of firm j at time t, measured as the proportion of independent Non Executive Directors to total number of board members
- BMTNG_{jt}= Board Meeting of firm j at time t, measured as the total number of meetings held by the Board in a financial year
- β₀ = Intercept
- β₁- β₅= Coefficients of independent variables
- ε_{jt} = Error term

4. RESULTS AND DISCUSSION

Descriptive Statistics

Table 1: Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
FRQ	-.80	-.15	-.3573	.15894	-.953	.212	.278	.422
BSIZE	6.00	15.00	9.1385	2.07515	1.324	.212	2.194	.422
BIND	.50	.90	.6325	.09292	.853	.212	.853	.422
BMT	3.00	7.00	4.4615	1.05031	1.265	.212	.603	.422

Source: SPSS 20 Output

The mean score of board size is 9.1385. This indicates that on the average the size of board of the sampled insurance companies is 9. The minimum is 6 while the maximum is 15. A standard deviation of 2.075 confirms variability in the size of the board. The minimum level of independence of the Board is 0.5 while the maximum is 9.0. The average value of 0.6 confirms the level of compliance of sampled insurance companies with the Code of Corporate Governance for insurance companies in Nigeria. The code specified that the ratio of non-executive directors to executive directors should be at least 60:40. The minimum number of times board of directors of sampled companies held meeting in a year is 3 and the

maximum is 7. An average of 4 meetings in a year indicates that board members likely held a meeting in each quarter of the years considered.

Correlation of Variables

The correlation values between financial reporting quality and board characteristics in table 2 below.

Table 2 Correlation Matrix

		FRQ	BIND	BMT	BSIZE
FRQ	Pearson Correlation	1			
	Sig. (2-tailed)				
BIND	Pearson Correlation	.197*	1		
	Sig. (2-tailed)	.025			
BMT	Pearson Correlation	.058	-.110	1	
	Sig. (2-tailed)	.999	.215		
BSIZE	Pearson Correlation	.228**	-.001	.285**	1
	Sig. (2-tailed)	.009	.988	.001	

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS 20 Output.

The correlation values are obtained using the pearson correlation of 2-tailed significance. From Table 2, the correlation between financial reporting and board independence is positive (19.7%) and statistically significant (p-value, 0.025). This signifies that the independence of the board is positively associated with financial reporting quality of the sampled companies. On the other hand, the correlation between board meeting and financial reporting quality is positive but not statistically significant. The correlation coefficient is 5.8% while the p-value is 0.999. The correlation between board size and financial reporting is positive and statistically significant. The coefficient is 22.8% and the p-value is 0.009. This implies a positive association between the size of the board and financial reporting quality.

Table 3: Summary of Regression Results

Variable	Coefficient	t-statistics	p-value	VIF
C	-2.207716	-4.684594	0.0000	
BIND	0.677330	2.307749	0.0228	1.016
BMT	0.031737	1.124171	0.2633	1.007
BSIZE	0.133007	3.155139	0.0021	1.042
R-squared				0.286480
Adjusted R-squared				0.192596
S.E. of regression				0.175039
F-statistic				3.051419
Prob(F-statistic)				0.000370
Breusch-Godfrey Serial Correlation LM Test				0.5346
White's Heteroskedasticity Test				0.3660
Hausman Test				0.0087

Source: Authors' Computation using Eviews 7.0

Table 3 indicates that there is no multicollinearity problem with the predictors (independent variables) of the study. This is because the tolerance values are consistently less than 1 and the VIF values are consistently less than 10. The table also indicates that the prob.chi-square of the White Test is 0.3660. This indicates that the variance of the error term is constant, implying that there is no heteroscedasticity problem.

The results of the Hausman Specification test is shows a p-value of 0.0087. This is statistically significant hence we reject the null hypothesis that random effect is appropriate. Thus fixed effect model is adopted.

The results in Table 3 indicate that about 28% percent of the variability in financial reporting quality of quoted insurance companies in Nigeria is explained by the board characteristics of the companies while the remaining 72% is explained by other variables not captured. The effect is statistically significant. The probability of F-statistics is 0.000370, this is less than 0.05 hence we reject the null hypothesis that board characteristics do not have significant effect on financial reporting quality of quoted insurance companies in Nigeria.

From the coefficients of the regression as shown in Table 3 above, Board Independence has a positive effect on financial reporting although the relationship is statistically significant. The coefficient is 0.677330 and the p-value is 0.0228 which is less than 0.05.

On the other hand, the effect of between Board Meeting on Financial Reporting Quality is positive but not statistically significant. The coefficient of board meeting is 0.031737 and the respective P-value is 0.263335. The P-value is more than 0.05. A positive coefficient implies that board independence improves financial reporting quality although this is not statistically significant.

The result on the effect of board size on financial reporting quality is positive and statistically significant. The coefficient is 0.133007 and the respective p-value is 0.0021. A positive relationship indicates that the size of the board influences financial reporting quality of quoted insurance companies in Nigeria.

Finding in this study indicates that board independence have positive and statistically significant effect on financial reporting quality. A positive relationship means that independence of the board improves financial reporting quality. The finding is consistent with that of Kantudu and Samaila (2015), Musa, Ibikunle and Oba (2013), Iraya, Mwangi and Muchoki (2015) and Bashiruddin (2011) which found that board independence reduces earnings management thus improving financial reporting quality. The finding is however contrary to Gonzalez, and Garcia-Meca (2013), Chalaki, Didar and Riahinezhad (2010) which documented otherwise.

In addition, the results show that the relationship between board meetings and financial reporting quality is positive but not statistically significant. Although not significant, a positive relationship means that more meetings are likely to mitigate earnings manipulations of managers thus improving financial reporting quality. This finding supports the findings in Gonzalez, and Garcia-Meca, (2013), Ismaila (2013), Iraya, Mwangi and Muchoki (2015), Vafeas (1999), Yatim, Kent and Clarkson (2006). It however did not support the finding in Kantudu and Samaila (2015).

Finally, the finding from this study indicates that the relationship between the size of the Board and financial reporting quality is positive and statistically significant. A positive relationship implies that as the size of the board increases, financial reporting quality reduces. Although not significant but it makes logical sense in that too many hands spoil the broth because excessive size can be an obstacle for quick and efficient decision-making. This is consistent with the findings in Chin, Firth and Kim (2006), Musa, Ibikunle and Oba (2013), Yu (2008), Iraya, Mwangi and Muchoki (2015) which provided empirical evidence that board size serves as effective monitoring mechanism of earnings manipulations by managers thus improving financial reporting quality.). On the contrary, the finding in this study

is inconsistent with the findings in Hashim and Devi (2008), Banderlippe (2009) and Alves (2012) which found a not statistically significant relationship between board size and financial reporting quality.

5. CONCLUSION AND RECOMMENDATIONS

This study examined the effects of board characteristics on financial reporting quality of quoted insurance companies in Nigeria. On the basis of findings, it is concluded that board size as measured by the number of the board of directors has significant positive effect on financial reporting quality. Larger boards are more effective in improving financial reporting quality. The independence of the board plays key role in improving financial reporting quality of quoted insurance companies in Nigeria. Thus the presence of higher proportion of non-executive directors on the board portrays an efficient monitoring mechanism in improving financial reporting quality. The number of meetings held in an accounting year also plays a role (though not significant) in predicting financial reporting quality of quoted insurance companies. The independence of the board should be maintained, sustained and monitored. The prescribed ratio (atleast 60:40) of non-executive to executive directors by the code of corporate governance for insurance companies should be maintained and closely monitored. The number of meetings held in a financial year measures the activity of the board. Frequency of meetings should be encouraged and monitored.

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EFFECTS OF EMPLOYEE ATTITUDES ON JOB PERFORMANCE AND ORGANIZATIONAL COMMITMENT

EJIKA SAMBO

Department of Management Technology
ModibboAdama University of TechnologyYola

Abstract

This study examines the effects of the employee attitude on job performance and organizational commitment the most focal employee attitudes in particular - job performance: (1) the causes of employee attitudes, (2) the results of positive or negative job performance, and (3) how to measure and influence employee attitudes. The study used a survey research for the collection of data. The major findings of the study is that the attitudes of employee affect their job performance and it gives room for organization to be less. Based on the findings, the study concluded that employee attitudes and job performance are significantly correlated. It is therefore recommended that managers should explain the corporate values of their organization to their employees very well during meeting or training session, so that employee could identify with the corporate values and in turn entrench organizational commitment.

Keywords:EmployeeAttitudes, Job Performance and Organizational Commitment

1. INTRODUCTION

The success and the survival of any organization are determined by the way the workers are remunerated and rewarded (Lawler, 2003). The reward system and the package of incentives for employees will determine the level of their commitment and attitudes towards work. As noted in Dixit and Bhati(2012) poor package of incentives has been a major factor affecting employees' commitment and productivity. In line with this, for any organization to achieve its objectives in any competitive society, employers of labour must have a thorough understanding of what drive employee to perform efficiently and with a view to reward them accordingly. Therefore, the purpose of this study is to provide greater understanding of the research on this topic and give recommendations related to the major findings. Before beginning, we should describe what we mean by employee attitudes and job performance.

Incentives propel and influence employee's attitudes in work place as well as stimulated understanding between employers and the employees which in turn brings about the optimal performance for both the employer and the organization (Barbara et al. 2003; Heneman 1992). Employees' attitudes and performance are largely influenced by incentive packages or reward system put in place by the organization (Osibanjo et al. 2012)

Attitudes are feelings and beliefs that largely determine how employees perceive their environment, commit themselves to intended actions, and ultimately behave. Attitude form a mental set that affects how we view something else. It has an impact on how we view and judge our surrounding at works. Therefore managers of organizational behaviour are virtually interested in the nature of the attitudes of their employees towards their jobs, towards their carriers, and towards the organization itself. Job attitudes of the employee are the most important factor that influences employee performance so that individual and organizational objectives are realized. Hence the present study intended to x-ray employee attitude such as employee involvement, job satisfaction and employee performance.

2. LITERATURE REVIEW

Employee improvement refers to the process of enjoying employee in their work and increasing their participation in decision making. Employee involvement ensures that employees who are close to the work have the power to control work methods, and are able to use their knowledge and skills to improve work process (Lawler 1992). Specifically it is assumed that when employees are given challenging work and allowed to participate in decision making they will (a) become more motivated and willing to control their own behaviour (b) become more involve in their work (c) increase commitment to organizational goals and (d) use their skills and abilities to make valuable contributions to organizational goals.

Attitudes such as employee involvement and job performance contribute to increase in the employee performance of their duties as attested employees which is proved by various studies (Vroom, 1964, Lowler and Porter 1967, Velnampy, 2006). The attitudes of worker in work place, measured by job involvement and job satisfaction, directly determine whether there is going to be better performance in an organization. And where workers attitudes is favourable to better performance, then, there, is commitment to work by the workers which in turn results in the improvement of the production areas of the organizations. However, different organization at different times passes the blame of their poor performance and low achievement on the employee poor attitude to work. The employees on their own

side blame their employers' poor attitude to work to management inability to motivate them and make the job satisfactory. Desimione and Harris (1998) could not agree to this when they noted that the possible influences on workers behaviour are internal factors such as motivation, ability, attitude, knowledge and skills. Morakinyo (2003). States that the fallen level of workers performance is attributable to owners' non-use of supervisory strategies, such as poor attendance to office, lateness, unsavoury comments about workers performance which could damage their ego; poor organizing on the job training and likes affect workers performance.

Employee Attitude Survey

In the literature, the two most extensively validated employee attitude survey measures are the job descriptive index (JDI; Smith, Kendall, & Hulin, 1967) and the Minnesota Satisfaction Questionnaire (MSQ; Weiss, Dawis, England & Lofaust 1967). The JDI assesses satisfaction with five different job areas: pay, promotion, coworkers, supervision and work itself. The JDI is reliable and has an impressive array of validation evidence. The MSQ has an advantage of versatility long and short forms are available, as well as faceted and over all measures. All these measures have led to greater scientific understanding of employee attitudes, and their greatest value may be for research purposes, yet these measures may be useful for practitioners as well

The Causes of Employee Attitudes

This paper considered work attitude to be a set of attitude and thoughts towards work and such attitudes and thoughts are reflected in the form of work involvement and organizational commitment. Diefondorff, Brown, Kamin, Lord (2002), indicated that work involvement is an indication of the level of job identification, emphasis and concern that employees have towards their jobs Employee work hard because they expect reward. Reward can include monetary benefit such as salary raise and promotion as well as psychological satisfaction such as feeling valuable, making contributions to the organization and expressing their talents (Huang and Huang 1997).

A high degree of work involvement means a high degree of self-growth, satisfaction and job performance in employees. As a result, the organization becomes more competitive (Liao and WU 2003). Mulki, Locander, Marshall, Harris and Hensel (2008) argue that, organizational commitment is a psychological solidarity that gives employees sense of belonging it create employees that are loyal to the organization and encourages them to maximize the efforts to the organizations (Chen, 2007) by understanding the organizational commitment of

employees, an organization can identify ways to retain employees who are highly committed to an organization identity with the goals and values of the organization and devices way to feel loyalty towards the organization (Chen and Chen 2006).

Job performance is the benchmark for promotions, redundancy, rewards, punishment, review and salary adjustment it also satisfies the need for employees to realize themselves. Therefore, job performance is one of the most research variables in organizational behaviour (Chun et al 2007). Lin et al (2008) suggested that job performance refers to all of the action taken by employees in order to make commitment to the organizational goals. These actions can be measured and assessed. The evaluation and application of performance reviews are the foundation for managers in allocating manpower, designing training programs, promotions and development. They are also critical to whether an organization can be fair in giving out reward and punishment, can enhance employee's morals, achieve it operational performance and formulate strategies in reconstruction and reformation (Dresang, 2002). Job performance is an indication of the work attitude of employees. It is necessary to provide timely incentives to employees in order enhance their loyalty to the organization (Li and Chan. 2003) therefore, the assessment and application of performance reviews is one the top priorities for high – performing organizations (Tsai, 2007).

Judge and his colleagues (Judge and Bono, 2001; Judge, Locke, Druhan, and Kluger, 1999) found that a key personality trait, core self-evaluation, correlate with employees job satisfaction. They also found out that one of the primary courses of the relationship was through the perception of the job itself. Thus, it appears that, the most important Situational effect on the job satisfaction-the job itself-is linked to what may be the most important personality trait to predict job satisfaction core-self-evaluation evident also indicate that some other personality trait such as extraversion and contentiousness, can also influence job satisfaction (Judge, Heller and Mount 2002). Even though, organizations cannot directly impact employee personality, the use of sound selection method and a good match between employees and job will ensure people are selected and placed into job most appropriate for them, which in turn will help enhance their job satisfaction.

The most cited cross –cultural work on employee attitude is that of Hofstede (1980, 1985). He conducted a research on employees attitude data in 67 countries and found that the data grouped into four major dimensions and that countries systematically varied along these dimensions. The four cross- cultural dimensions are: individualism- collectivism, uncertainty avoidance versus risk taking; power distance and masculinity/ femininity which is called achieved orientation.

The four dimensions have been a useful framework for understanding cross-cultural differences in employees attitudes as well as recognizing the importance of cultural causes of employees attitudes. More recent analyses have shown that country/culture is a strong predictor of employee attitudes as the type of job a person has (Saari; 2000;Saari&Erez 2002; Saari& Schneider 2001).

How To Control/ Avoid the Causes/ Influence of Employee Attitude

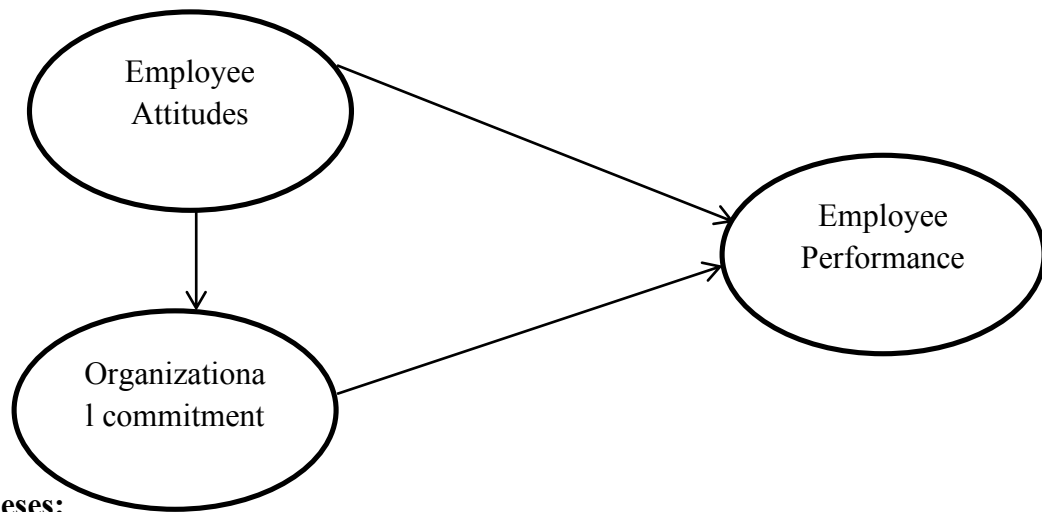
The most important way to control employee attitude is to be better informed about research. Organization need (HR) human resources managers who know how to develop effective and research- based employee attitudes measures, understand and derive valuable insight from the data and use the results to improve employee attitudes and job performance and help lead organizational change. The need to measure, understand, and improve employee attitudes is essential for organizations of today.

In terms of evaluating the practices of Human Resources (HR), the most acceptable methods are to apply return on investment(ROI)principles. These includes assess employee attitudes that predict organizational performance and improve employee attitudes are job performance and their evaluating through appropriate research designs and measurements, whether these objectives were met.

Work Situation Influences

Work situation matters in terms of job satisfaction and organization impact. The most notable situational influences on the job satisfaction is the nature of the work itself- often called “intrinsic job characteristics”. Research studies across many years, organizations and type of jobs show that when employees are asked to evaluate different facets of their job such as supervision, pay, promotion opportunities, coworkers etc. The nature of the work generally emerges as the most important job facet (Judge & Church, 2000, Jurgengen, 1978) as indicated in Lise& Timothy 2004).Groups, interviewing employees or carrying out employee surveys. The most accurate measure is a well-designed employee attitude survey.

Figure 1: Hypothesized Model as Modified by the Research



Hypotheses:

H1: Employee attitudes have significant effects on organizational commitment.

H2: Job performance has significant effect on organizational commitment.

3. METHODOLOGY

The purpose of this study is to check the effect of employee attitudes on job performance and organizational commitment. The survey method is used to obtain the data from employees working in the health sector. The questionnaire was used for this purpose that is developed by (Linz, 2002). The sample of 300 employees, among nurses and doctors that are selected from different health sector of Adamawa State by using random sampling technique.

4. RESULTS AND DISCUSSION

In order to check employee attitudes on job performance of health workers in Adamawa State there are some entries. The mean values are derived with respect to their level of job performance.

The table 1 is showing the descriptive statistics of the main variables. Result show that the employees are highly satisfied with their job and the nature of work they are doing in their respective organizations. Employees having salary ranges from 50,000 to 150,000 are at least satisfied because they are more experienced as compared to other employees. In order to check the independency between employee attitudes and job performance bivariate correlation has been applied. The

result show a weak but significant relationship between employee attitudes on job performance and organizational commitment which indicate that both variables have effect on each other while there is low level of multicollinearity between predictors. In table 2 the result of regression analysis have been shown indicate that there is positive significant relationship between job performance and organizational commitment. It implies that as the attitudes become positive employees will feel more satisfaction towards their jobs and their performance will enhance the result are also similar with literature (Bateman & Organ, 1983). In table 3 the results of regression analysis have been shown indicate that there is the positive significant relationship between organizational commitment and employee attitude on job performance. It implies that committed employees will perform well (Newman & Sheikh 2012).

Table 1: Descriptive Statistics

Level	Frequency	Means	Org.	Frequency	Means	Dept.	Frequency	means
Senior	160	58.7	Public	120	44.8	Medicine	75	25.9
Junior	140	41.8	Private	180	54.7	Medical record	83	28.9
						Laboratory	88	30.3
						Pharmacy	54	14.4
	300			300			300	

Table 2: Model Summary

R	R Square	Adjusted R Square	Std Error of the Estimate
.63	.40	.35	.57014

Table 3: Regression Results

Understandadized Coefficients			Standardized Coefficients		
	B	Std Error	Beta	t	Sig
(Constant)	1.952	.326		5.997	0.000
ATW	.450	.059	.339	5.064	0.000

5. CONCLUSION AND RECOMMENDATIONS

One likely future direction of employee attitudes research will be to better understand the interplay between the person and the situation and the various internal and external factors that influence employee attitudes.

In addition, ongoing research will provide more in-depth understanding of the effects of employee attitudes and job performance on organizational measures such as customers' satisfaction and financial measures. More emphases is on the relationship between employee attitude on job performance and organizational commitment will assist HR professionals as they strive to enhance the essential people side of the organization in a highly competitive global arena. The study explained that the staff members those that have magnificent level of organizational commitment execute well as well as achieve their goals. The staff members that have good quality of attitude towards work are warmly satisfied as compared to those are less inclined towards their work. It is recommended that managing committee of health sector that they should adopt the appraisal reward policies to enhance the level of job satisfaction.

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EFFECT OF INVENTORY MANAGEMENT ON FINANCIAL PERFORMANCE: EVIDENCE FROM NIGERIAN CONGLOMERATE COMPANIES

AdamuDanlami Ahmed¹, SalihuAliyu Modibbo², KumsheHauwa Modu³ and BahammanSaleh Muhammad⁴

adamud.ahmed63@yahoo.com¹ salihumodibbo@gmail.com²
hajiyakumshe@gmail.com³sbahamman@gsu.edu.ng⁴

^{1&4}Department of Accounting, Gombe State University, Gombe State, Nigeria
²Department of Accountancy ³Department of Banking and Finance
ModibboAdama University of Technology, Yola - Nigeria

Abstract

This study looked at the relationship between inventory management and financial performance. The population of the study comprises all conglomerate quoted company in the Nigerian stock exchange market as at 31st December 2010. The scope of the study covered the period from 2010 to 2014. Descriptive, Pearson correlation and multiple regressions are used to analyze the data. It was found that inventory management is significantly related to the profitability of a company. This entails that; an efficient management of inventory cycle will enhance the profitability of a company. Also, lack of proper management of it will hinder the financial performance of the organizations. Based on the result, it was recommended that Conglomerate Company should try to see that inventories are kept to the minimum, as well as make sure that proper checks are kept to make sure only needed inventories are in the store and also to keep track of the movement of goods, in order to avoid necessary delay of finished and WIP goods in the store and warehouse.

Keywords: finished goods, work in progress, financial performance, activity based costing, inventory

1. INTRODUCTION

Inventories are assets held for sale in the ordinary course of business; in the process of production for such sale; or in the form of materials or supplies to be consumed in the production process or in the rendering of services (IAS 2). Several decades ago inventories of raw materials, work-in-progress components and finished goods were kept as high as possible against the possibility of running out of materials in stock (Salawati, Tinggi, & Kadri, 2012). However, keeping large inventories tied down resources and generates hidden costs (Salawati, Tinggi, & Kadri, 2012). Likewise, too much inventory consumes physical space, creates a financial burden, and increases the possibility of damage, spoilage and loss (Nyabwanga & Ojera, 2012).

On the other hand, too little inventory often disrupts business operations (Dimitrios, 2008). The objective of material management is to maximize the use of firm's resources by ensuring adequate supply of material for production process and also minimizing cost of holding excessive inventories (Ogbadu, 2009). Inventories are significant portions of current assets to any business enterprise (Kotler & Keller, 2006). It played a vital role in keeping organizational activities running effectively. No operation can take place without proper and adequate inventory on ground. Managing inventory is a crucial aspect of working capital management. Organization need material to produce finished good, as such efficient managing of inventory will affect the financial performance of the organization. Organization need to keep adequate resources to cater for working capital needs, especially inventory.

Inventory control is the supply of goods and services at the right time with the right quality and quantity (Ogbo & Onekanma, 2014). Inventory management has been a problem to many business organizations in Nigeria (Ogbo & Onekanma, 2014). Inventories provide a significant link between production and sales of product, and constitute a large percentage of the cost of production. It is one of the most expensive and important assets of many manufacturing companies representing a considerable percentage of the total invested capital (Ogbo & Onekanma, 2014). As such, proper care and effective management must be a concern of top management in planning phase. Efficient allocation and monitoring is the answer to inventory management. A better inventory management enhances financial performance of a company.

Several studies of (Monday, 2012; Uremodu, Ebide & Enyi, 2012; Samson, Josiah, Yemesi & Erekpitan, 2012; Mathias & Owour, 2015; Dimitrios, 2008) were conducted but there is no con-census on the outcome. Some found that, there is

positive and significant relationship between the variables while others assume otherwise (Owolabi&Alu, 2012; Bavelde, 2012). Almost all the studies conducted in Nigerian companies, none was conducted on the conglomerate company. This research intends to breach the gap of academic research by using a panel data of Conglomerate Company quoted on Nigerian stock exchange for 5 years in order to validate or invalidate the existing findings. Also to give a wider coverage of time as well as covering the whole population of the study.

2. LITERATURE REVIEW

Inventory management is the effective and efficient use of material and stock in the organization to maximize performance. Effective inventory management is essential in the operation of any business (Bassin, 1990). Miller, 2010 asserts inventory control as the supervision of the storage, supply and accessibility of items to ensure an adequate supply without excessive oversupply. Inventory control means availability of materials whenever and wherever required by stocking adequate number and kind of stocks (Ogbo, Onekanma& Wanes, 2013). The sum total of those related activities essential for the procurement, storage, sales, disposal or use of material can be referred to as inventory management. They have to meet the set budget and decide upon what to order, how to order and when to order so that stock is available on time and at the optimum cost (Benedict & Margeridis, 1999). Hence, Inventory management involves planning, organizing and controlling the flow of materials from their initial purchase unit through internal operations to the service point through distribution (Smaros, et al., 2003). Inventory constitutes one of the largest and most tangible investments of any retailer or manufacturing organization. Intelligent inventory management strategies can not only help boost profit but they can mean the difference between a business thriving or barely surviving. Holding inventories at the lowest possible cost and giving the objectives to ensure uninterrupted supplies for on-going operations is the aim of inventory management.

When making decisions on inventory, management has to find a compromise between the different cost components, such as the cost of supplying inventory, inventory holding cost and cost resulting from insufficient inventories (Peterson and Silver, 1998; Zipkin, 2000). According to Miller (2010), inventory control is the activity which organizes the availability of items to the customers. It coordinates the purchasing, manufacturing and distribution functions to meet the marketing needs. Changes in inventory levels affect return on asset (ROA), which is an important financial parameter from an internal and external perspective. Reducing inventory usually improves ROA and vice-versa if inventory goes up without offsetting in revenue (Coyle, Bardi& Langley, 2003). There it is essential to take efficient

management of inventory movement to maintain high profitability. As we know, the management of inventory is one of the most difficult tasks for working capital managers, on the decision on how to reduce the inventory to the extent that will possibly shorten the C2C cycle and reduce cost. The danger of reducing an inventory downwards to a stage close to zero is that it increase the chance of running out of resources required in the production or running short of finished goods at some point in a high demand (Usama, 2015)

Studies on the relationship between the inventory management and profitability are not much especially in the developing nation. Among the early research are the work of Ogbo, Onekanma and Wilfred, 2003, they worked on the effective inventory control system; they find out that, to achieve high profit a flexible inventory service need to be fixed. Meaning that, if the inventory is low the profitability is high. Also, some study found a positive relationship between inventory and financial performance (Monday, 2012; Uremodu, Ebide&Enyi, 2012; Samson et al., 2012; Mathias &Owour, 2015; Dimitrios, 2008). Other study includes that of Falope and Ajikore, 2009; Usman, 2015; Baveld, 2012, found out that no significant relationship between inventory management and profitability. This indicates another opinion that, in some cases inventory do not affect the level of profitability in the company.

In another angle, Soekhoe (2012) conducted a study on working capital and firm's profitability of Dutch company using a sample of 70 firms between the periods of 2006 to 2010. Pooled and fixed effect regression were used and found out that C2C circle positively correlate with profitability, also Inventory conversion cycle is positively and significant to the profitability of the companies.

Rimo, Panbunyen 2010, investigated the effect of company characteristics and working capital management of Swedish company. 40 companies were selected as sample. Regression were applied and found out a positive and significant relationship between number of inventory days and profitability.

Warnes 2013 also conducted a study about the relationship between working capital management and Profitability on manufacturing firms on Karachi stock exchange. It was found out a positive relationship between inventory days as one of the component of working capital and profitability.

In contrast, Alipour 2011 studied working capital management of Iran Company within the time frame of 2001-2006. Sample of 1063 out of the population of 2628

were selected. Multiple regressions, were used, and found out a negative significant relationship between inventories turnover days and profitability.

From the foregoing empirical, it can be concluded that, this topic of the study have a mixed result as shown from the previous authors. So, the pot is open for contribution from different angle to fill the gap, either to validate or invalidate the existing literatures.

Several practices exist in the present world to manage inventory. Most of the developing nations are not acquainting to those practice, among them are:

Just in time

The implementation of JIT system is a mechanism for reducing non-value added cost and long-run costs. It is a system whose objective is to produce or procure products/components as they are needed or required than for inventory. JIT system was developed in Japan and is considered as one of the main contributions to Japanese manufacturing success. It involves continues commitment to the pursuit of excellence in all phases of manufacturing system design and operations.

The aim of JIT system is to produce the required items, of high quality, exactly as the time they are required and the required quantities. Among the goal of JIT are zero inventory, Elimination of non-value added activities, Zero defects, 100% on time delivery.

Lean production: Lead production is a philosophy and a way of working involving eliminating all forms of waste (where waste is defined as anything that does not add value in the production process and supply chain). JIT is a key element of Lean production system.

Material Requirement Planning: MRP is a computerize information, planning and control system which has objectives of maintaining a smooth production flow. It is concern with maximizing the efficiency in the timing of orders for raw materials or part that are placed with external suppliers and efficiency scheduling of the manufacture and assembly of the final product.

ABC Analysis: Activity-based costing (ABC) is a costing techniques that assign cost based on it is cost driver. Each overhead activity will be match with it is cost driver in other to know how to allocate cost. It identifies a causal relationship between incurance and activities and established cost pools which can be used to allocated overhead. This system come in to being to replace the traditional

Absorption costing method, whereby, each overhead must be absorb based on the cost activities and it is pool.

3. METHODOLOGY

The population of the study comprises all conglomerate companies quoted on the Nigerian stock exchange as at 31st December 2010. Due to the nature of the population, the sample of the study is the working population. The study covers the period of 5years form 2010 to 2014. The research design employed in this study is ex-post facto, where annual reports and account were used to extract data for the study. A performance measure used for this study is ROA. The techniques used for analysis are descriptive statistics, Pearson coefficient and linear regression.

Measuring Firm Size

In measuring firm size, the study adopted the natural logarithm of total assets at the end of the year. This was used by Cano-Rodríguez (2010), Poorzamani and Anhari, (2013) in their various studies.

Measuring Financial Leverage

The study employed the ratio of total debt with the total assets in measuring financial leverage of a firm. Where total debt is the book value sum of short-term debt and long-term debt as obtained in the studies of Biddle et. al. (2011) and Poorzamani and Anhari (2013).

Model Specification

$$ROA_{it} = \beta_0 + \beta_1 INV_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \varepsilon_{it}$$

Where:

ROA= stand as the measure of performance (Return on Asset).

INV= RM + WIP + FG

INV= Inventory

RM= Raw material

WIP= work in progress

FG= Finished Goods

LEV= Leverage

β_0 = stand for fixed intercept element

ε_{it} = Stand for Error term

4. RESULT AND DISCUSSION

Under this section, data were presented and analyzed using the descriptive statistics, Pearson coefficient and linear regression. The results were shown below:

Table 1. Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Studentized Residual	.160	25	.099	.945	25	.189

a. Lilliefors Significance

Table 1 above shows the normality of variable for the study. It shows that the variables are stationary. There fit for the analysis. Other graphical normal test are shown in the appendix.

TABLE 2 . Correlations Coefficients of Variables

		inventory in days	return on asset	size	leverage
Pearson Correlation	inventory in days	1.000	.742	-.144	.133
	return on asset	.742	1.000	-.270	.256
	size	-.144	-.270	1.000	.234
	leverage	.133	.256	.234	1.000

Correlation analysis assesses the inter-relationships and association between variables. Tables .1 provide some insight into which of the independent variables is related to the dependent variable. The highest among the correlation is that of Inventory and ROA, which shows 74.2%. Means that inventory increase by 74.2%, ROA will also increase by the same percentage. The correlation between inventory and size is negative. This shows that a reduction of company asset by 14.4% will increase the ROA by the same percentage. While that of leverage which shows the percentage of 13.3%, which entails a correlation between it and ROA.

TABLE 3. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.749 ^a	.560	.498	.56218	.560	8.923	3	21	.001

a. Predictors: (Constant), leverage, size, return on asset

From table 2 above, the coefficient of determinations “R-square” shows 56% indicating that the variables considered in the model accounts for about 56% change in the dependent variables, which is ROA, while the remaining 44% can be explained by other variable not addressed in this study. Also looking at the F value, which shows .001, it indicated that there is a significant relationship between the dependent variable and independent variable of the study.

Table 4. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.285	3	.095	9.269	.000 ^a
	Residual	.215	21	.010		
	Total	.500	24			

a. Predictors: (Constant), lev, siz, roa

b. Dependent Variable: inv

TABLE 5. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.665	.310		2.145	.044		
	return on asset	.825	.167	.789	4.936	.000	.819	1.221
	size	.089	.158	.090	.564	.578	.829	1.207
	leverage	-.152	.266	-.090	-.570	.575	.835	1.198

a. Dependent Variable: inventory in days

From table 3 above, it is indicated that return on asset is significantly related with the inventory by showing a Sig value of 0.000, which is less than 0.005 significant levels. All the VIF values are less than 10, also the tolerance level are higher than 0.2, this implies absence of multi-co linearity with ROA. Likewise the t-value are still higher than 0.2.

5. FINDINGS, CONCLUSION AND RECOMMENDATION

From the above result, it is shown that inventory management is significantly related to the profitability of the company. Meaning that, a better management of inventory cycle will enhance the profitability of the company. This point can be viewed from the result above. This result is in line with the work of Alipour (2011); Gill, Biger and Mathur (2010); Padachi (2006); Warnes (2013); Soekhoe (2012) and Rimo and Panbunyuen (2010). Likewise some scholars' have found a negative relationship between the variables under study, which include among them Alipour (2011); Panigrahi (2013).

It was concluded that, as inventory management played a vital role in financial management decision. It is paramount that a special care should be giving to it is management to make sure stock are not kept for long without necessary. With that, capital will not be tide down; as such the money can be used elsewhere to gain interest or better profit.

Based on this, it is recommended that, conglomerate company should tried to see that modern method of inventory management is implemented to enhance it is management. Also to keep track of the movement of goods, in order to avoid necessary delay of finished and WIP goods in the store and warehouse.

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WORKING CAPITAL MANAGEMENT AND PROFITABILITY OF LISTED CONSTRUCTION COMPANIES IN NIGERIA

MUHAMMAD, Maryam Isyaku¹ and CALEB, Afodia Benjamin²

^{1&2}Department of Accountancy, Modibbo Adama University of Technology, Yola, Adamawa State

ABSTRACT

Working capital management involves the management of the most liquid resources of a firm which includes cash and cash equivalents, inventories, trade debtors, trade creditors and other receivables. This study examined the impact of working capital management on profitability of listed construction companies in Nigeria. Data was sourced from the annual reports and accounts of five (5) construction companies listed on the Nigerian Stock Exchange for the period of 10 years: 2006 - 2015. The study found positive significant effect of ACP and ICP on profitability, while APP presents an insignificant negative impact on profitability of listed conglomerate firms in Nigeria. The study therefore conclude that the significant positive impact of ACP and ICP on profitability and the insignificant negative impact of APP on profitability is an indication of effective working capital management with great impact on profitability. Based on the conclusions of the study, it is recommended that management of listed construction companies in Nigeria should reduce the rate at which credit is issued to customers and shorten their collection period. They should endeavor to pay their suppliers early. These strategies are expected to shorten the cash conversion cycle thereby, improving the profitability of listed construction companies in Nigeria.

Keywords: Working Capital Management, Profitability, Listed Construction Companies

1. INTRODUCTION

The global economic meltdown of 2008 has affected the profitability of many listed firms on the Nigerian Stock Exchange, many firms are just struggling to survive in the Nigerian capital market due to the unfriendly operating environment, in which many firms have found themselves, it really hinders their profit making efforts. The concept of working capital management addresses short-term capital of companies and the goal of the management of working capital is to promote a satisfying liquidity, profitability and shareholders' value (Deloof, 2003). Working capital management is the ability to control effectively and efficiently the current assets and current liabilities in a manner that provides the firm with maximum return on its assets and minimizes payments for its liabilities (Mogaka & Jagongo, 2013). Working capital management is an important element in analyzing firm's financial performance. It is also a managerial accounting strategy, which focuses on maintaining efficient levels of components of working capital such as current assets and current liabilities. Efficient management of working capital ensures a company has sufficient cash flow to meet its short-term debt obligations and operating expenses.

Working capital management is concerned with efficient management of different components of working capital- current assets and current liabilities. Managers of firms are required to operate at optimal level of working capital (Filipa & Garcia, 2011). Excess working capital is not an ideal level because capital will be tied up unnecessarily and this will not generate additional income to the firm. Furthermore, inadequate working capital may lead to the collapse of the firm because there will be disruption in the production process since the firm will not be able to meet up with its short-term commitments. Management of working capital is central to the growth and survival of any business. The need for maintaining adequate working capital is imperative, just as circulation of blood is very necessary in the human body to maintain life, every company needs enough short term assets to cover short term debt and to maintain business.

Working capital management involves managing inventory, receivables, cash and payables with the aim of optimizing investment in current assets and minimizing current liabilities in order to increase companies return and reduce capital tied up in working capital (Ojeani, 2014). Eljelly (2004) defined working capital management as the planning and controlling of current assets and current liabilities for preventing the risk of a company's incapacity of short term payments as well as to avoid unnecessary investment in these assets. Padachi (2006) identifies internal and external factors as major determinants of success or failure of any firm. According to him, external factors include: availability of attractive financing, economic

conditions, competition, government regulations, technology and environmental factors. On the other hand, internal factors include: managerial skills, work force, accounting systems and financial management practices. As identified above, topmost in the list of the problems facing Nigerian construction firms are: poor management of working capital and unfriendly operating environment. A large number of business failures in the past were attributed to the inability of financial managers to properly plan and control the working capital of their respective firms. Inefficient working capital management in the face of economic and political crises in Nigerian businesses today has led to loss of profit; owing to high bad debts, over/under stocking; liquidity problem; inability to expand; financial losses; vulnerability to liquidation and insolvency (Egbide, 2009).

Return on assets (ROA) measures the return to all firm's assets and is often used as an overall index of profitability, and the higher the value, the more profitable the firm. ROA is therefore an indicator of managerial efficiency as it shows how the firm's management converted the institution's assets under its control into earnings (Falope & Ajilore, 2009). Profitability depends heavily on WCM because when financial managers fail to manage the components of working capital, the outcome may result to lead to a decline in profits as such the business might crumble. Thus, efficient WCM is crucial to the financial performance of firms of all sizes and it also serves as an important indicator of sound financial health of firms, a poor or inefficient WCM leads to tying up funds in idle assets and thereby reducing the profitability of a company (Akinlo, 2012). The aim of working capital management is to maintain an optimal balance of each component of working capital which is having sufficient working capital to ensure an efficient business operation. The construction industry plays an important role in the economy and the activities of the industry are also vital to the achievement of National Socio-economic development goals of providing shelter, infrastructure and employment. It is clear that construction activities affect almost every aspect of the economy and the industry is vital to the continued growth of the economy. Even though with the level of growth in the sector Nigeria Stock Exchange delisted some of the construction companies capital and others were suspended from the market.

One of the major objectives of working capital management is to ensure that corporate entities have sufficient, regular and consistent short term capital to finance their activities (Ojeani, 2014). Construction companies in Nigeria are still finding it difficult to be successful because of the effect of the global economic recession of 2008, they are also faced with several constraints, including low capacity utilization, under capitalization, a weak financial base, increase competition and poor working capital management among others (Ojeani, 2014).

Studies on WCM have concentrated heavily on the manufacturing in different economies (Muhammad 2015& Nuru 2011). Others include pharmaceutical, textiles, banking, and beverage industry to name a few (Sharma & Kumar, 2011; Ojeani, 2015; Agba & Mba, 2014 and Onwumere, Ibe, and Ugbam (2012). This study therefore seeks to fill existing gap by studying construction companies which is lacking in the Nigerian domain.

Therefore, the aim of this paper is to analyze the impact of working capital management on profitability of Listed Construction Companies in Nigeria. As a result, four hypotheses were formulated in a null form to guide the study;

- i. Average Collection Period has no significant impact on Profitability of listed construction companies in Nigeria.
- ii. Average Payment Period has no significant impact on Profitability of listed construction companies in Nigeria.
- iii. Inventory Conversion Period has no significant impact on Profitability of listed construction companies in Nigeria.
- iv. Cash Conversion Cycle has no significant impact on Profitability of listed construction companies in Nigeria.

The findings of this paper are expected to assist construction companies in Nigeria and other companies in general to improve on their financial decision making therefore optimizing the value of shareholders investment. Creditors would also find this study beneficial due to their interest regarding the survival of their investee firms. This amongst others is attainable through an efficient management of firm's working capital. Lastly the outcome of this study is expected to stimulate further empirical studies on working capital management in Nigeria and beyond.

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

This section reviewed and presented relevant literature on working capital management and firm profitability. Empirical studies on working capital management and the theoretical framework of working capital management were also discussed.

Working capital is the fund available to a business for its day to day business activities. Thus, Khan and Jain (2005) defined working capital as capital invested in current assets, which are those assets that can be converted into cash within a short period of time and the cash received is again invested into the assets. Working

capital can be viewed dynamically as equilibrium between the income-generating and resource-purchasing activities of a company (Pass & Pike 1984 as cited in Ojeani, 2015), in which case it is closely linked to the cash conversion cycle. Ojeani (2015) view Gross working capital (Total Current Assets) refers to the firm's investment in current assets. Current assets are the assets, which can be converted into cash within an accounting year or operating cycle. Thus, Gross working capital, is the total of all current assets. Net working capital according to them refers to the difference between current assets and current liabilities. Working capital management involves managing inventory, receivables, cash and payables with the aim of optimizing investment in current assets and minimizes current liabilities in order to increase companies return and reduce capital tied up in working capital. Thus it can be argued that business success depends heavily on the ability of financial managers to effectively manage the components of working capital (Filbeck & Krueger, 2005). Therefore, for the purpose of this study Return on Asset and Return on Equity was used as the proxies of the dependent variable because ROA indicates managerial efficiency as it shows how the firm's management converted the institution's assets under its control into earnings (Falope & Ajilore, 2009) and ROE indicate how well the managers uses the resources of owners.

Several researches were conducted locally and internationally by different authors, scholars and researchers. Lazaridis and Tryfonidis (2006), who used a sample of 131 companies listed on the Athens Stock Exchange (ASE) for the period of 2001-2004. They concluded that there is a significant negative relationship between Cash Conversion Cycle (CCC) and Gross Operating Profit (GOP). Their findings disclose that managers can create profit by handling the CCC correctly and by keeping cash component AR, AP and Inventory to an optimal level. In the same spirit of research, Gill, Biger and Mathar (2010) used a sample of 88 American firms listed on New York, SE for a period of 5 years from 2003-2007. Their result demonstrated that there is a statistically significant relationship between CCC and profitability. Samiloglu and Demirgunes (2008) used a sample consisting of companies listed at Istanbul SE for the period between 1998 and 2007, used 5,843 firm quarterly data and through implementing multiple regression analysis. The result shows that account receivable, inventory and leverage affect firm profit negatively: growth in sales affects firm profitability positively; on the other hand Uyar (2009) studied the relationship between CCC with firm size and profit of 166 firms listed at the Istanbul stock exchange for the year 2007. The study concluded that there is a significant negative relationship between the length of CCC and profitability. Saleem and Raheman (2011) studied the impact of liquidity ratios on profitability of oil and gas companies in Pakistan. Their findings present a

significant impact of only liquid ratio on ROA. In Ethiopia, Nuru (2011) studied the effect of working capital investment and financing policies on firms' profitability a sample of 11 manufacturing private limited companies from 2005 through 2009. Using multiple regression, he found a negative relationship between working capital and profitability. The negative effect was attributed to the period of study which the global recession period was included when many firms were striving to survive in the financial market. Nyamao, Lumumba, Odondo and Otieno (2012) conducted a study to investigate the effects of working capital management practices on the financial performance of small-scale enterprises (SSEs) in Kenya. The study, which adopted a cross-sectional survey research design, found that working capital management practices were low amongst SSEs as majority of them had not adopted formal working capital management routines. Similarly, their financial performance was on a low average.

Bandara (2015) studied the impact of Working Capital Management Policy (WCMP) on firm value in Sri Lankan companies. Data were gathered from 74 companies listed in the Colombo Stock Exchange (CSE) covering seven business sectors for the sample period from 2009 to 2014. The regression result shows that WCIP and WCFP have a negative relationship to MVA. The results showed significant negative relationship between the firms' degree of aggressiveness of WCIP and MVA of the companies in Sri Lanka. It provided evidence that the minimum level of investment in current assets leads to have higher MVA of the firms in Sri Lanka. In Nigeria, Akinlo (2012) investigated the determinants of working capital requirements of 66 firms using panel data for the period 1997-2007. The results suggest that sale growth, firm's operating cycle, economic activity, size and permanent working capital are firm specific characteristics that positively drive working capital policy. The import of the study was that traditional valuation methods used to quantify the efficiency of corporate working capital policy may be suspect as increased investments in operating working capital may be necessitated by increased business uncertainties. In a similar vein, Falope and Ajilore (2009) utilized panel data econometrics in a pooled regression, where time-series and cross-sectional observations were combined and estimated. They found a significant negative relationship between net operating profitability and the average collection period, inventory turnover in days, average payment period and cash conversion cycle for a sample of fifty Nigerian firms listed on the Nigerian Stock Exchange. In the same spirit of research, Paul and Agbo (2010) analyzed the impact of working capital on the profitability of the Nigerian cement industry for the period of 2002-2009. The study found a significant negative relationship between numbers of days inventory held, cash conversion cycle and number of days accounts receivable are outstanding with profitability. The negative result may

be due to the sample selected which is fifty Nigerian firms selected from different sector of the economy.

Bhunja and Das (2012) conducted a study to examine the relationship between the working capital management structure and the profitability of Indian private sector firms. The independent variables used in the study were ratios that affect working capital management and included the following: current ratio, liquid ratio, cash position ratio, debt-equity ratio, interest coverage ratio, inventory turnover ratio, debtors' turnover ratio, creditors' turnover ratio, and working capital cycle. Return on capital employed ROCE was used as a proxy for profitability. Using multiple regression analysis, the study found a weak relationship between all the working capital management constructs and profitability. Sharma and Kumar (2011) used a sample of 263 non-financial firms listed on the Bombay Stock Exchange during 2002 to 2008. Data were analyzed using OLS multiple regression. The study found a positive relation between WCM and firm profitability, although the relationship between cash conversion cycle and ROA was not statistically significant. The study also found that account receivables are also positively related to ROA and that account payables are negatively related to ROA. The results assert that Indian firms can increase profitability by increasing cash collection cycle. Owolabi & Alayemi (2010) in their study of working capital as a financial strategy found that there is a strong and negative relationship between the working capital (especially in terms of whether the company adopted an aggressive or conservative approach in managing their working capital) and the profitability of a Nigerian manufacturing firm. Nguyen, Tran and Nguyen (2016) examined the effect of working capital management on profitability of listed companies on Vietnamese Stock Exchange, they used a sample of 127 public companies for the period of 9 years from 2006 to 2014. Using regression analysis the result revealed that all the proxies of the independent variable shows a zero coefficient with firms' profitability in the sample. The reason could be that despite being a crucial part of business, however Working Capital Management is just the condition of fulfilling the short-term obligations, or may be to know how to improve the efficiency of the companies through managing the production stage or credit policies.

Muhammad (2015) studied the impact of working capital management on profitability of Textile sector of Pakistan using a sample of 138 Pakistan firms listed on Karachi Stock Exchange from 1999-2007. Using regression analysis the result revealed that firm size, days inventory, days payables, days receivables and cash conversion cycle has significant impact on Net operating profit of Pakistan firms. Yohannes and Venkateswarlu (2016) studied the effect of working capital management on firm's profitability of manufacturing companies in eastern

Ethiopia. Findings show that WCM has negative impact on profitability, longer accounts receivable & inventory holding period are associated with lower profitability and shortening the cash conversion cycle improves firm's profitability. In a similar study Zelealem (2016) studied relationship between working capital management and profitability of small manufacturing firms in Pakistan. The result indicates that WCR and WCP significantly predict profitability of small manufacturing firms.

As such, the literature review indicates that working capital management has impacts on profitability of a firm. The efficiency of a company's working capital management has lasting impact on company profitability. As mentioned before, all the above studies tend to indicate that working capital management has an impact upon corporate profitability. The construction sector was neglected of which almost all the above reviewed studies examined impact of working capital management on profitability without putting much consideration to the construction sector. This current research therefore seeks to fill the gap in accounting literature by assessing the impact of working capital management on profitability of listed construction companies.

This study is underpinned by Stakeholder theory. This framework is the dominant one adopted by scholars in stakeholder studies (Sundaram & Inkpen, 2004), popularly propounded by Freeman (1984), Donaldson & Preston (1995) and Clarkson (1995). The theory refers to any group or individual who can affect or is affected by the achievement of the organization's objectives. Unlike agency theory in which the managers are working and serving for the stakeholders, stakeholder theorists suggest that managers in organizations have a network of relationships to serve, this include the suppliers, employees and business partners. And it was argued that this group of network is important other than owner-manager-employee relationship as in agency theory (Freeman, 1999). Therefore it can be deduced from the stakeholder theory that the interests of all stakeholders can be affected or affect the organization.

3. METHODOLOGY

This paper adopts ex-post facto research design. Ex-post facto research design examine how an independent variable present prior to the study, affects a dependent variable and which allowed the use of secondary data. The design is believed to be adequate and appropriate for the measurement of the Impact of working capital management on profitability of Listed Construction Companies on NSE. The population of the study comprised of all the six (6) construction companies listed on the floor of Nigerian Stock Exchange (NSE) as at 31st December, 2015 and the sample size constitutes five (5) out of the six (6) listed companies as a result of data availability for the study. Secondary data were employed and these were obtained from the published annual reports and accounts of the sample companies from the Nigeria Stock Exchange for a period of 2006 to 2015.

Variables Measurement and Model Specification

The dependent variable for the study is profitability which is represented by return on assets (ROA). ROA portrays an effective indicator of managerial efficiency as it shows how the firm's management converted the institution's assets under its control into earnings. For the purpose of this study, ROA is measured in this study as (PAT) divided by total assets (TA) of a firm (Dong & Su, 2010). Agba and Mba (2014), Balasundaram (2010) opine that ROA measures the overall efficiency of management in producing profit by utilizing its available resources. Profitability analysis is a key sign to know firm's performance and ROA is one of the measures to asses firm's profitability. The independent variables for this study are: Average Collection Period, (account receivables x365)/Net Sales), Inventory Conversion Period (inventory x 365)/cost of goods sold), Average Payment Period and Cash Conversion Cycle. The choice of the variables for this study was primarily guided by previous empirical studies and availability of data. Thus, the variables of the study were consistent with those of (Falope & Ajilore, 2009).

Model Specification

Two models were developed to achieve the objectives of the study, they are as follows:

$$ROA = \alpha + \beta_1 ACP_{it} + \beta_2 APP_{it} + \beta_3 ICP_{it} + \beta_4 CCC_{it} + e_{it} \dots \dots \dots (i)$$

Where:

ROA = Return on Assets

ACP = Average Collection Period

ICP = Inventory Conversion Period

APP = Average Payment Period

CCC = Cash Conversion Cycle

β_1 - β_4 = Parameters to be estimated (is the average amount the dependent variable increases when the independent increases by one unit and other independents are held constant).

e = error term

4. RESULTS AND DISCUSSION

In this section, results were presented and discussed based on the empirical results from which conclusions will be drawn. Descriptive statistics, correlation matrix, multicollinearity and regression results were presented.

Descriptive Statistics

Table 1: Descriptive Statistics.

Variables	Minimum	Maximum	Mean	Std. Dev.	N
ROA	24.511	117.577	62.6779	27.1374	50
ACP	55.922	246.745	89.2604	33.8864	50
APP	34.305	180.491	73.9250	25.6152	50
ICP	28.075	177.503	63.6979	29.2255	50
CCC	21.173	175.588	78.2450	34.8755	50

Source: STATA 12output.

Table 1 presents the descriptive statistics for the regression variables. The table shows the average indicators of variables computed from the financial statements of the sampled firms during the study period. The average (mean) of firm ROA is approximately 62.67, while ACP, APP, ICP, and CCC have mean scores of 89.26, 73.92, 63.69 and 78.24approximately. CCC has the highest standard deviation

showing its least contribution to the study while APP has the lowest standard deviation indicating its highest contribution to the model of the study.

Table 2: Correlation Matrix

Variables	ROA	ACP	APP	ICP	CCC
ROA	1.0000				
ACP	0.5818*	1.0000			
APP	0.1632	0.3618*	1.0000		
ICP	0.1586	-0.0018	-0.1405	1.0000	
CCC	0.1009	-0.0552	0.1062	0.3274*	1.0000

*, Correlation is significant at 0.05%

Source: STATA output 12.(2017)

Table 3 shows the correlation coefficient between the dependent and independent variable. In a summarized form, the correlation matrix presents a positive relationship between the dependent variable and ACP, APP, ICP and CCC. Negative relationship exists between ACP and ICP, CCC. Similarly a negative relationship appears between APP and ICP. This indicates the existence of relationship between the dependent and independent variables, thus satisfying the classical assumptions of linear regression.

Table 3: Robustness Test

Variables	VIF	Tolerance Values
ACP	1.17	0.852562
APP	1.23	0.816320
ICP	1.17	0.853990
CCC	1.17	0.854989
Mean VIF		1.18
Hetest Chi2	3.15	0.28
Hetest Sig	0.1761	0.5972
Hausman Chi2	13.39	23.61
Hausman Sig	0.0095	0.0001

Source: Stata output 12. (2017)

A test to determine the presence of collinearity problem was conducted. Collinearity arises where two of the independent variables are correlated and multicollinearity is where more than two of the independent variables are related. To test for collinearity problem, Correlation and Variance Inflation Factor (VIF) test were performed. Table 3 above does not suggest presence of collinearity amongst the independent variables as the values ranges from a minimum of 1.17 to a maximum of 1.23. Therefore, the result of the multicollinearity test conducted indicates the mean Variance Inflation Factor (VIF) of 1.18. Therefore, the predictive powers of the independent variables are not adversely affected by any relationship amongst them and this means that the finding of the study can be considered reliable.

This subsection presents the results of the OLS regression. The regression result is presented in the Table below:

Table 4: Regression Results

Variables	Coefficient	Std Error	T
CONSTANT	23.857940	0.106949	1.58 (0.121)
ACP	0.459400	0.154335	4.30*** (0.000)
APP	- 0.203039	0.125585	-1.32 (0.196)
ICP	0.206883	0.105427	2.85*** (0.005)
CCC	0.076889	15.08265	0.73 (0.470)
R Square:			
Within	0.3360		
Between	0.4332		
Overall	0.3500		
rho	0.1955		
F-value	5.19		
P Value	0.0018		

Source: STATA output (2017).

Note (the P- values are in the parenthesis, significance at 1,5 and 10% ***,**,* levels respectively)

The fixed effect (FE) regression results in table 4.5 shows R^2 of 0.3500 which is the multiple coefficient of determination indicating the proportion or percentage of the total variation in the dependent variable explained by the independent variable. The R^2 of 0.3500 implies that about 35% of the (dependent variable) profitability (ROA) of listed construction companies in Nigeria is accounted for by the (independent variables) ACP, APP, ICP and CCC. This clarifies the fitness of the model and therefore, the findings of the study can be relied upon.

The regression result from table 4 shows that, average collection period has a coefficient value of 0.4594 and t-statistics value of 4.30 which is statistically significant at 1% level of significance on ROA of listed construction companies in Nigeria. This implies that one unit increase in ACP of listed construction companies will increase ROA of listed construction companies by 45.94%. The p-value leads to the failure to accept the null hypothesis (H_{01}) which states that ACP has no significant impact on the profitability of listed construction firms. Finding stands at variance with apriori expectation of a negative impact on ROA. Results coincides with Agba and Mba (2014) and Sharma and Kumar (2011) and contradicts that of Falope and Ajilore (2009) and Mathuwa (2010) This may be attributed to the fact that construction companies have credit worthy customers thereby increasing their availability of cash in other to conveniently finance their projects thereby increasing profits.

However, this study did not find any significant relationship between APP and firm's profit. On this basis the null hypothesis (H_{02}) that APP has no significant impact on ROA fail to be rejected. The negative coefficient of -0.2030 implies that one unit decrease in APP of listed construction companies will increase ROA of listed construction companies by 20.30%. The finding supports the findings of Sharma and Kumar (2011) and Nguyen, Tran and Nguyen (2016). However, finding failed to support Paul and Agbo (2010). In relation to inventory conversion period, finding presents a positive effect, statistically significant at 1% level of significance on ROA of listed construction companies in Nigeria. The economic implication is that for every one unit increase in ICP of listed construction companies, ROA of listed construction companies in Nigeria increases by 20.68%. Finding leads to the rejection of hypothesis three (H_{03}). Finding can be interpreted to mean that listed construction companies in Nigeria are more profitable when they hold inventory for a longer period. This enables them not to cease operations like construction as such, improving their profits. Finding coincides with that of Yohannes and Venkateswarlu (2016) and Ching *et al.* (2011). However, Samuel and Benjamin (2011) present a conflicting result stating that inventory conversion period does not influence profitability of a firm. Cash Conversion Cycle emerges

positive and statistically insignificant with ROA. The insignificance of the result leads to the acceptance of the fourth null hypothesis. This implies that cash conversion cycle is relatively shorter in construction firms in Nigeria though it does not trigger profits. This finding is concur with prior studies by Yohannes and Venkateswarlu (2016) and contradicts those of Akoto, *et al.*(2013) and Gakure, *et al.*(2012) who document significant relationship between cash conversion cycle and ROA.

5. CONCLUSION AND RECOMMENDATIONS

The purpose of this paper is to analyze the impact of working capital management on profitability of listed construction companies trading on the Nigerian Stock Exchange. The current economic recession make it difficult for a company to borrow to finance its daily operations and even if it can obtain the loan the interest is very high. These brings about the need for the company to manage their working capital effect which will enable the company fund its daily operations, meet capital requirement and reinvest in other activities. Listed construction companies in Nigeria that give more credit record more sales which improve their profit level. However, more credit to customers exposes the company to the risk of customers defaulting in payment. Construction companies in Nigeria have shorter cash conversion cycle which result into higher profit as compared to other companies with longer cash conversion cycle. Overall, this paper highlights that effective working capital management has a great impact on profitability. In order to boost the wealth of listed construction companies, management should endeavor to find and employ a viable working capital composition that increases their profitability. The study recommended that listed construction companies in Nigeria should develop an explicit procedure for collecting their receivables. Construction companies have to pay their debts on time to enjoy discount from their suppliers and to maintain good relationship in the long run. Since listed construction companies have shorter cash conversion cycle, the companies have to maintain an optimal liquidity level, as it enhances efficiency in their working capital management. This research like any other study is not without limitations. in Nigeria, out of many other working capital components such as current ration, Days of working capital, marketable securities and working capital policy (aggressive and conservative), profitability measures such as Return on sales, Return on Capital Employed and Gross Operating Profit. Further studies may cover other listed firms operating in Nigeria for a wider coverage.

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AN ASSESSMENT OF THE IMPACT OF CO₂ EMISSION ON CHILD MORTALITY IN SUB-SAHARAN AFRICAN COUNTRIES

HASSAN Ibrahim Bakari¹, AHMED Umar Tukur², and GABDO, Yusuf³

^{1,2,3}Department of Economics, Modibbo Adama University of Technology, Yola, Adamawa State – Nigeria.

Abstract

Economic development is usually associated with environmental challenges which include emission of some harmful gases like CO₂, SO₂, NO₂ etc usually released by firms, households, vehicles. These gases in the long run have a serious health impact to the environment and human lives. This study examines the effects of carbon dioxide emission on Child Mortality, and assesses the impact of female education, and Gross Domestic Product (GDP) per capita on child mortality. Series of static panel estimations techniques of Pooled OLS, Fixed Effect and Random Effect are employed on panel data obtained from the World Bank. The results of the estimations show a significant strong relationship between the CO₂ emissions, female education and GDP per capita on one hand and child mortality on the other hand. It is therefore advisable for the policy makers to take more proactive measures to reduce CO₂ emission, and also to invest more on female education and primary maternal health care, and intensify efforts at promoting even distribution of income, especially in the less developed countries.

Key words: Child Mortality, CO₂ Emission, Female Education, GDP Per Capita, Sub-Saharan Africa

1. INTRODUCTION

Pollution from economic activities such as vehicles, industries is becoming a major concern to environmental economists around the world. World bodies like World Bank (WB), the World Health Organization (WHO), United Nations (UN) are making concerted efforts to regulate these problems through various programmes. However, most efforts seem to be concentrated in the most advanced economies of the world. Emission from industries and vehicular promotes global warming, deforestation, and most importantly affecting human health which is the main focus of this study. Various studies were carried out on the effects of CO₂, NO₂, MP_{2.5} etc and its devastating effects that lead to high child mortality rate especially in the urban centres. This paper tries to look at the relationship between CO₂ emissions on mortality rate in sub-Saharan Africa over a period of 19 years and the impact female education and GDP Per capita would play in reducing child mortality in sub-Saharan African countries.

There exist a strong relationship between economics principles, environment and the economic activities of the people. As much as economic activities depend on the environment, so also socio-economic activities of the people. The economic benefits the environment offers includes; provision of oxygen, water supply, food supply, shelter raw materials for industries etc. Theories of production has provided theoretical basis for interaction between productivity and economic growth of a country. It's therefore pertinent for us to understand the economic importance of our environment and protect it from degradation. A number of studies carried out shows that there is a relationship between the Carbon Emissions on human health (Shields et al 2013, Gonzalo et al 2012). However, most of these studies concentrated in developed world with very little attention given to the less developed countries as observed in Clark(2010). Although carbon emission is prevalent in developed countries with massive concentration of industries, there is a need to examine the case for developing countries like most Sub-Saharan African countries that either engage in gas flaring or has prospect for industrialization. For this reason this research work assesses the impact of CO₂ emission on infant mortality rate in Sub-Saharan Africa. The work is structured into four sections with introduction in the first section. Section two reviewed the related theoretical and empirical literature, while methodology is given in section three. Result and analysis are presented in section four and section five concludes the work.

2. LITERATURE REVIEW

The literature is here discussed under two categories; the theoretical literature review and the empirical literature review. Substantial number of theories and models can found explaining forms, causes and behaviours of environmental pollution. The Material Balance Model shows an elaborated circular flow which incorporated economic decision making and the natural environment in the traditional circular form of income shown in Figure 1 below. The model shows the relationship between environment and the economy through the flow of resources from the environment to the economy referred to as natural resource economics and the flows of residuals from the economy to the environment referred to as environmental economics. According to Scott and Janet (2010), the MBM on the flow of natural resources and flow of residuals increase over time due to increase in economic activities to meet the ever increasing demand for resources from household and firms. The system eventually released residuals or by-products to the environment. Residuals mostly come in the form of gases, industrial waste, carbon dioxide, fossil fuel e.t.c which are harmful to the environment in the long run. From the above we can therefore establish linkage between economic activity, residuals and the likely impact it has on the environment and that necessitates the study of environmental economics.

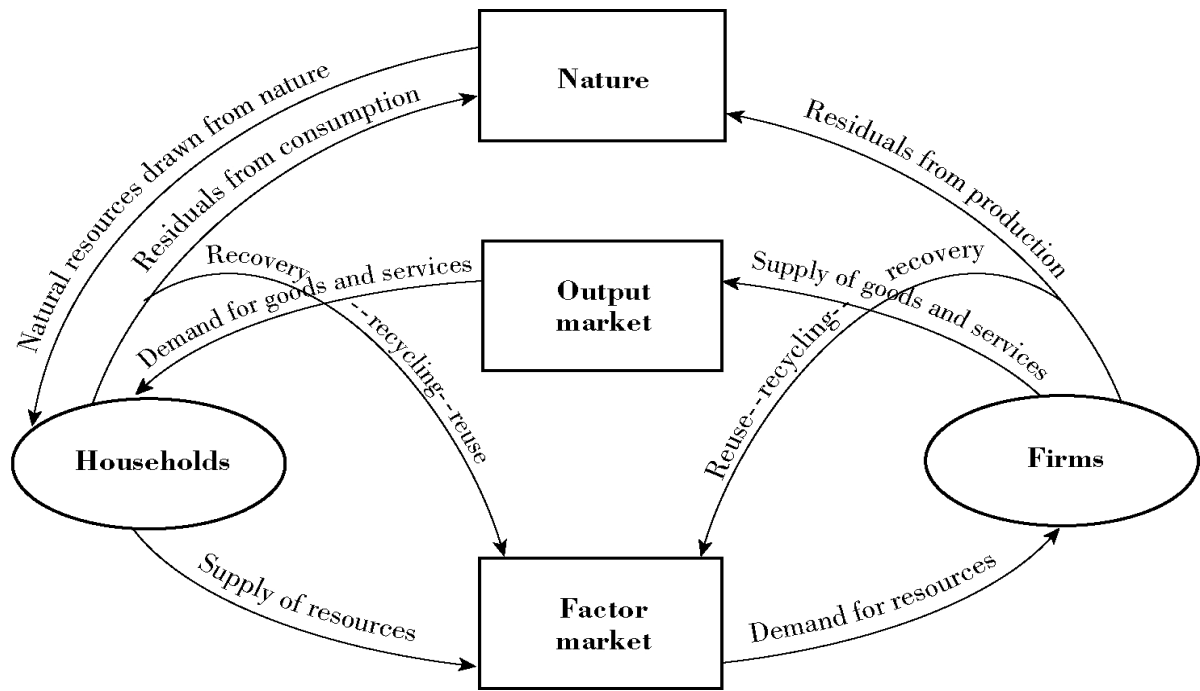


Figure 1 Material Balance Model

2.1 Environmental Externality

Markets are assumed to provide the best and efficient allocation of resources and eliminate inefficiencies in resource allocation; however markets failed to internalise pollution. The inability of the market mechanism to internalise pollution leads to market failure. Such failures occur as a result of third party being affected by the market activities of production and consumption. This is because there is no incentive in the market to internalise implicit cost as a result of that third party is affected (Scott and Janet, 2010). The effect on the third party could be positive and negative. Although both could lead to market failure, the negative externality is considered the worst especially its effect on the environment. Negative externality occurs when an individual or firm making a decision does not take in to account the external cost of its action on the third party. 08133103592

Economists developed interest on negative externalities that damage the atmosphere, sources of water, natural resources and entire human health. Negative externality is associated with production of goods and services, e.g a public transport system causes air, noise, pollution and affects the value of nearby private

property. These costs are not absorbed by the transport company or the users, because the implicit costs are incurred by the third parties outside the market transaction. On the other hand externalities can also be associated with consumptions of goods whose by products or residuals are not biodegradable. Externalities and public goods are not the same but they are closely related. They are related because both have effects on the society and its effects are non-rival and non-excludable. Therefore, protecting the environment can come either from the market approach or government approach.

In attempt to address the problem of property right and externality The Coase Theorem was developed by Ronald Coase, the theorem states that assigning proper property right to any good would allow bargaining between parties to take place and reach an agreement even if externalities exist and no matter who holds the right. The theorem was built on the assumption that there exist no transaction cost; and damages are accessible and measurable in quantitative terms. Although the theorem provided a solid foundation for finding solution to the problems of externalities, but real world situations proves that the assumptions are unattainable due to presence of transaction cost, many people are involved when it comes to externalities and measurability of cost (implicit) usually difficult to come by in real world situation (Scott and Janet, 2010).

Empirical Literature

Substantial number of empirical evidences has shown that environmental contaminations in form of pollutions lead to different types of diseases. Gonzalo et al (2012), show that colorectal cancer (CRC) is among the leading cancer affecting human health in the world today. The study observes that the incidence and mortality varies from one country to another due to variation in development and exposure to gases released by vehicles and firms. According to them high incidence are recorded in Australia/ New Zealand, North America and Europe. Gonzalo observe that in 2008, global estimates of CRC is 1,233,000 with developed countries (DC) accounting for 60% while the less developed countries (LDC) 40% with death rates in some cases 1/7. Thus the increase in mortality rate is due to little attention given to industrial pollution which led to increased environmental exposure and to complication in digestive system. In a related study, Shields et al (2013) show a significant positive relationship between exposure to pollution and cardiovascular related diseases caused by emission of acute gases and particle traffic related pollutants remain unclear. Using a single and double pollutant linear mixed-effect model of panel study, the study established a linkage between

emissions and heart rate variability (HRV). The result shows that Short term exposure to traffic related emission is significantly related to changes in HRV. Yorifuji et al (2011) also tries to look at the linkage between air pollution through concentration of Nitrogen dioxide (NO₂) as a result of diesel vehicle emission on mortality rate and whether improve in emission control reduce mortality rate in 23 wards of Tokyo Japan. The study used time series and interrupted time series to analyse the data in the two periods: before introduction of tighter restrictions (2003-2006) and after the introduction of tighter and its enforcement (2006-2008) respectively. The results shows that the concentration of pollutants gradually decreased during the study period.

Amanda S et al (2003) in their study looked at the policy of minimum pollutant policy (ambient) and its effects on mortality in Auckland, New Zealand. The study is divided in to urban and rural areas where emissions levels are not the same and also the differences in age, sex, socioeconomic status in both areas of the study. The urban air shed modelling and GIS-based techniques are used to analyse long term effects of exposure to ambient air pollution levels and associated mortality. The results of the study shows exposure response relationship between exposure and the number of people who die from respiratory causes attributed to air pollution. The study also revealed that long term exposure to poor air quality; even below current standards (as at then) is a hazard to the public health.

On the Nigerian perspective, Ojolo (2007) investigates the state of vehicular emission in Lagos, Nigeria. The study specifically investigates the effects of vehicular emission on people, vegetation, and environment. The researcher justified the study from the view that previous studies have shown that vehicular emission accounts for 60% of pollutant emitted when compared to other sources and danger to society. The study focused on congested areas of Lagos where heavy vehicular emission are common and found evidence of excessive emissions that could be hazardous to the area if left unchecked. Limin (2003) in his empirical study carried out on child mortality in less developed countries (LDCs) based on different income levels in the urban and the rural communities also indicates that as child mortality declines the gap between the poor and the rich is widened. Equally it was revealed that child mortality in the rural areas is higher than in the urban areas. The researcher suggests that health initiatives in the past prove to be less effective in the rural areas.

On the educational status of the parents, Buor D (2001), found a relationship between mother's educational attainment and childhood mortality. In his which focuses on the linear relationship between mother's educational levels and its

significant effect on the child health condition was carried out in Ghana. The results of his study shows there is a positive relationship between provision of basic health facilities, mother's education and child survival. That is to say there exist a linear relationship between maternal education and childhood survival. However, he observed the existence of maternal and child health facilities in the area of the study. Therefore, he recommended the integrating maternal education and child health services. Result showed transport related pollution is indeed significant with possible severe health consequence in the region. Researcher suggests additional research on the impact of vehicle emission on air quality and health in the region. On the other hand, Adetunji (1995) in his study discovered that there exist a negative relationship between mothers' level of education and child mortality rate. He observed that children whose mothers are secondary school leavers have higher mortality rate. However, he observed that there are variables that influence levels of child mortality that are more significant which includes: socioeconomic factors, maternal health care provision, adequate breast feeding of children. In addition, the researcher observed that mortality rate tends to be less among children whose parents attained higher educational levels due to better condition of living, and health care. Finally the researcher concludes that there is inconsistency on the pattern of relationship between infant mortality and parents educational levels. He recommends adequate breast feeding in reducing child mortality.

Furthermore, Boyle et al (2006) shows that significant relationship between economic development level of countries (household wealth by extension) and women's (maternal) educational attainment on child health. The study reveals that economic development enhance opportunities for better job opportunities, investment, income, good food, water and shelter which will have multiplier effects on child health conditions. According to the researcher earlier studies have shown a strong relationship between child mortality rate and malnutrition in developing countries and economic indicators like GDP, GNP and Per Capita. The results of the study showed a strong relationship between economic development level, household wealth, and maternal education on child health. The study further revealed that economic development is an important factor underlying between country differences in child health. Clark (2010) also observed that discordant result found in various studies may not be unconnected to uneven distribution of income as a result of gross domestic product (GDP) improvement over time. The results of study show that life expectancy average converged during 1955-2005 period under study, but infant mortality rates continuously diverged. He suggests that health outcomes a welfare kuznet curve. The researcher concludes that in many developing countries economic development improves life expectancy more than it reduces infant mortality. However, there is a positive relationship between the two.

3. METHODOLOGY

This research work uses the celebrated static panel estimation techniques of Pooled Ordinary Least Squares (OLS), Fixed Effect and Random Effect. At the first instance the Pooled OLS is run on the data. However, the pooled OLS estimator has a drawback in that it is likely to generate highly biased coefficients by ignoring both country-specific effects and possible endogeneity of the right hand side variables. To that effect, the Breusch-Pagan test is conducted on the estimates of the Pooled OLS to determine whether to accept it or to reject. The second and third estimation methods are applying fixed effects (FE) and random effects (RE) estimations techniques to model (1). These two techniques can handle systematic tendency of individual specific components to be higher for some units than for others (individual effects) and possible higher in some time periods than others (time effects). We applied Hausman test to check whether fixed effect or random effect is suitable. We use F-test and t-test to test the goodness fit overall the model and significant of each independent variables respectively.

Data

The data that were used in this analysis are World Bank's world development indicator data, covering the period from 1992-2012. Some of the countries are dropped due to the non-availability of data, Only 33 Sub-Saharan Africa countries. The study tested CO₂ emission, female primary level enrolment Ratios (Ledu), and Gross domestic products per capita (GDP PC) and their effects on Child Mortality (CHMR). However, the researcher places more emphasis on CO₂ emission.

Model Specification

In order to investigate the impact of vehicle emission on child mortality rate we specify the following model:

$$Y_{it} = \beta_1 + \beta_2 CO_{2it} + \beta_3 LEDU_{it} + \beta_4 GDPPC_{it} + \lambda_{it} + \varepsilon_{it}$$

Where Y_{it} represents the indicator of Child mortality, with the subscript i for countries ($i=1 \dots n$) and t for years ($t = 1992 \dots 2011$), while CO_2 , $GDPPC$, and $LEDU$ are Carbon dioxide emissions (measured in metric tons per capita), Female primary level enrolment ratio (% gross) and Gross domestic product per capita (constant 2005 US\$) respectively. λ_{it} , while is individual specific effect and ε_{it} the disturbance or error term.

4. RESULTS AND DISCUSSION

From the analysis presented in Table 1 below, it can be seen that there exist a significant effect of CO₂ emission on child mortality. There is also a linkage between mothers' education and fall in child mortality rate, and improvement in GDP leads to reduction in child mortality. In all the three estimation techniques significant relationship exist between the dependent variable and the explanatory variables, with all the signs conforming to *a priori* expectations. While the CO₂ emissions is positively related to Child Mortality, both the Mother's Education background and GDP per capita are negatively related to the mortality rate as expected. Furthermore, from the series of post-estimation test, result from the Random-Effect is favored and upheld for inference. This is because the Breuch-Pagan test rejects the null of Pooled OLS and the Hausman-test failed to reject the null of Random-effect. The coefficient of CO₂ emissions in Random shows 0.0820, for Parent education reads -0.2697 and for the per capita income is -0.3646.

The results generally appeared to have agreed with the material balance theory which states that household, firm's economic activities affects the environment and human life. That is to say when households and firms release residuals as a result of production and consumption of good, it will have an impact on the environment and human live in the long run. The result of this study did not support the effects of CO₂ emission on mortality in sub-Saharan Africa may be due its underdevelopment. However, when gases released by households firms, and vehicles inform of CO₂, industrial waste, fossil fuel can affect human health negatively. It's therefore justified that the third party is affected by the economic activities of the household and firms negatively because there is no provision for market mechanism to internalize implicit cost as a result of that the third party is affected. On the hand, economic theory has addressed the problem of property right. The theory argued that assigning property right to any good will allows parties to bargain and reach an agreement.

Our empirical evidence has shown that there is a significant relationship between CO₂ emission and child mortality rate. This is in line with the results from the study carried out by (Gonzalo et al 2008, shield et al 2013 and Yurifuji 2011) observes that the incidence and mortality varies from one country to another due to variation in development and exposure to gases released by vehicles, firms.

Our second finding indicates a positive relationship between mothers' education and fall in child mortality rate. The findings are in line with our literature although previous studies indicate some discrepancies with our results. Buor (2001) in his study discovered that although there is a positive relationship between reductions of

child mortality but he emphasizes more on integrating. On the other hand the study by Adetunji (1995) is a little bit different from our study results. His study indicates that mothers' education at lower levels tend to have no influence on reducing mortality rate in less developed countries. He argued that there are variables that influence child mortality rate much more than mothers' educational levels. This according to him includes adequate breast feeding, maternal health care provision. He therefore places more emphasis on breast feeding.

The third finding from our study shows a positive relationship between increased in economic development and reduction in child mortality. Earlier by (Boyle 2006, Clark 2010) to a certain level agreed with the findings of this study. This is because the studies identified positive relationship between GDP and reduction in mortality rate. However, they argued that studies have shown a strong relationship between improvements in economic growth and high levels of child mortality and malnutrition in many developing countries. However, they observed that the problem may not be unconnected to uneven income distribution of GDP and per capita income. They observed that even distribution of income in the future will certainly improve the situation. We can argue then that the results show an improvement due to improvement in income distribution in developing countries over the years.

Table 1: Panel Estimation Result

	Pooled OLS	Random Effect	Fixed Effect	Random Effect with time dummy
Constant	7.568 (-0.335)	8.424 (-0.3197)	8.171 (-0.3487)	6.928 (-0.2028)
LCO ₂	-0.0636** (-0.0264)	0.0820** (-0.0199)	0.0876** (-0.0202)	0.0061*** (-0.0094)
LEDU	-0.2047* (-0.0565)	-0.2697** (-0.0341)	-0.268** (-0.0343)	-0.0410** (-0.0237)
LGDP	-3.069** (-0.0342)	-0.3646** (-0.0429)	-0.323** (-0.0491)	-2.989** (-0.0275)
Breusch Pagan test		0.000	--	--
Hausman test	--		0.9994	--
Multi	2.19			--
Auto		0.000		--

Note: ***, ** and * indicate significance level at 1%, 5% and 10%.

5. Conclusions

The research investigates the effect of Carbon emission on Child mortality in the 33 Sub-Saharan countries. Using the Panel Pooled OLS, Fixed and Random Effects panel estimations, the result revealed a significant relationship between the Child Mortality and CO₂ emissions. The finding revealed that despite relatively low industrialization in Sub-Saharan Africa, the emission of harmful gases has grown enough to hamper on the optimum health of the inhabitant and increase the Child Mortality rate. More also, the result on the control variables of Mother's Education and GDP per capita shows significant negative relationship with the Child Mortality rate. Notwithstanding the low CO₂ emission strict there is need to implement more proactive measures in curbing the levels of emissions as economic development is usually accompanied with greater emissions. There is need to implement the Bamako initiative by providing more health facilities in rural Africa. There is also a need to redistributes income of the rural areas to enhance economic

development and sensitize mothers on the dangers of children exposures to harmful gases.

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