Effects of IFRS Adoption on the Financial Reports of Nigerian Listed Entities: The case of Oil and Gas Companies

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Abstract

On 28 July 2010, the Nigerian Federal Executive Council approved January 1, 2012 as the effective date for the convergence of Nigerian Statement of Accounting Standards (SAS) or Nigerian GAAP (NG-GAAP) with International Financial Reporting Standards (IFRS). This study will investigate the effects of the adoption of IFRS on the financial reports of Nigerian listed Oil and Gas entities. The study will first investigate the impact of the adoption of IFRS on Exploration and Evaluation (E&E) expenditures and expenditures associated with decommissioning of oil and gas installations. However, the effects of accounting standards like; IFRS 6 (exploration for and evaluation of mineral resources), SAS 14: Accounting in the Petroleum Industry (Upstream Activities), SAS 17: Accounting in the Petroleum Industry (Downstream Activities), IAS 16: Property, Plant and Equipment, IAS 31 and other standards relevant to Oil and Gas Companies will also be investigated. The study will further investigate the reaction of the key performance indicators (KPIs) of Nigerian listed Oil and Gas firms in terms of liquidity, profitability and leverage and other industry specific performance measures on the adoption of the policy. A mixed method research will be employed where accounting numbers of listed Oil and Gas firms obtained from the published financial reports from 2009 to 2011 prepared under NG-GAAP will be compared with accounting numbers from 2012 to 2014 prepared under IFRS. A variety of summary statistics like variances, correlation and regression coefficients where applicable, will be used for the analysis. Questionnaires will also be administered followed by interviews and the result analysed using the relevant statistical packages in order to draw conclusion.

Keywords: IFRS, NG-GAAP, SAS, Adoption, Financial Reports, KPIs, Nigeria, Oil and Gas

1. INTRODUCTION

Before the discovery of Crude Oil, Nigerian economy had been totally reliant on the proceeds from export of Agricultural produce. Agriculture therefore played a very vital role in the growth and development of the Nigerian economy. The discovery of commercial quantity of Crude Oil in 1956 changed the whole scenario. Agricultural production became only on subsistence basis, while Oil exploration and production became the main economic activity. Crude Oil export is presently the main source of Nigeria’s income.

However, Nigeria has been bedevilled by myriad of problems since the country gained independence from the British Colonial masters over 50 years ago. The Crude Oil and Gas
exploration, production and distribution has been facing series of problems from Oil bunkering and Oil pipeline vandalisation to incessant attacks and kidnapping of expatriate staff of International Oil Companies (IOCs) for ransom by militants in the Oil producing areas (Niger Delta Region). These militants, the Movement for the Emancipation of Niger Delta (MEND) repeatedly cite injustices in the allocation of funds to the oil producing states from which the revenue is generated as their main grievances against the IOCs and the Nigerian government.

The illiteracy and poverty levels in Nigeria are presently at their peak and 68% of the Population live below the international poverty line of US$1.5 per day (UNICEF 2011). Massive corruption at all tiers of government and the private sector is very pervasive in recent times, the security threat from the MEND in Niger Delta and the Boko Haram religious sect in the North Eastern Nigeria are the two main challenges to the security situation in the country.

In the accounting and finance sector, companies cook figures and manipulate financial statements; tax avoidance is the norm of the day while persistent earnings management is left unchecked by the authorities because of weak and ineffective regulation. Most of the Nigerian Statement of Accounting Standards (SASs) or NG-GAAP issued by the NASB are outdated and considered insufficient to provide the necessary guidance in the preparation of qualitative financial statements.

These problems coupled with many issues, necessitated the present government to introduce series of economic reform programmes in the various sectors of the economy in order correct the aberration and to propel the country among the twenty most developed nations in the World by the year 2020 (vision 2020). The most prominent reforms in the accounting and Oil and Gas sectors are; the adoption of International Financial Reporting Standards (IFRS), the replacement of the Nigerian Accounting Standards Board (NASB), the body responsible for the issuance of SAS with the Financial Reporting Council (FRC) and the establishment of the IFRS Academy. These reforms are intended to improve the general accounting quality of Nigerian companies, improve the comparability and transparency of their financial statement and reduce information asymmetry. While in the Oil and Gas sector, a Petroleum Industry Bill (PIB) aimed at revamping the oil and gas sector is currently being debated by the country’s national house of assembly.

1.1 RESEARCH OBJECTIVES

The main objective of my research is to investigate the effects of one of the reform programmes of the present government (IFRS adoption), on the financial statements of Nigerian listed Oil and gas companies. The study will investigate the impact of IFRS adoption on the Exploration and Evaluation (E&E) expenditures, Decommissioning Expenditures and other significant expenditures incurred in the Oil and Gas exploration and production process. The study will further investigate the effects of IFRS adoption on key performance indicators (KPIs) of Oil and Gas listed firms in Nigeria in terms of liquidity, profitability and gearing as well as the industry specific performance measures. The study will take into cognisance the influence of IFRS 6: 

1.2 RESEARCH HYPOTHESES:

Based on the research objectives and the research questions, the following hypotheses were developed and will be tested in the course of the study.
H1: The adoption of IFRS will have a significant impact on the KPIs of Nigerian Oil and Gas listed entities.

H2: The adoption of IFRS will have a significant effect on the E&E expenditures incurred in oil and gas exploration and production process.

H3: The adoption of IFRS will have a significant effect on the expenditures incurred in the decommissioning of Oil and gas installations.

H4: The adoption and implementation of IFRS will significantly affect the contractual relationship between IOCs and the Nigerian Government in terms of JVs and PSCs

2. LITERATURE REVIEW

IFRS Adoption and Implementation in Nigeria:
The Nigeria’s Federal Executive Council (FEC) gave approval for the convergence of Nigerian SAS with the IFRS from January 1, 2012. The adoption was organized such that all stakeholders use IFRS by January 2014. According to the IFRS adoption Roadmap Committee (2010), Public Listed Entities and Significant Public Interest Entities are expected to adopt the IFRS 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. Nigerian listed entities were required to prepare their closing balances as at December 31, 2010 according to IFRS. The closing figures of December 31, 2010 will become the opening balances as at January 1, 2011 for IFRS based financial statements as at December 31, 2011. The opening balances for January 1, 2012 will be the first IFRS full financial statements prepared in accordance with the provision of IFRS as at December 31, 2012.

“It will be in the interest of the Nigerian economy for listed companies to adopt globally accepted, high quality accounting standards, by fully converging Nigerian national accounting standards with International Financial Reporting Standards (IFRS) over the earliest possible transition period, given the increasing globalization of capital markets”.

IFRS Adoption Roadmap Committee, 2010: p.10

Overview of Nigerian Oil and Gas Sector:
The advent of the oil industry in Nigeria can be traced back to 1908, when a German entity, the Nigerian Bitumen Corporation, commenced exploration activities in the Araromi area of Western Nigeria. These pioneering efforts ended abruptly with the outbreak of the First World War in 1914. Oil prospecting efforts resumed in 1937, when Shell D’Arcy (the forerunner of Shell Petroleum Development Company of Nigeria) was awarded the sole concessionary rights covering the whole territory of Nigeria. Concerted efforts after several years and an investment of over N30 million, led to the first commercial discovery in 1956 at Oloibiri in the Niger Delta by Shell D’Arcy Petroleum, with a modest production rate of 5,100 barrels per day. This discovery opened up the Oil industry in 1961, bringing in Mobil, Agip, Safrap, Tenneco and Amoseas to join the exploration efforts both in the onshore and offshore areas of Nigeria.

The country began to export its entire production of 5,100 bpd in 1958 and was among the world’s oil elite by 1972 with an average production of 2.46 million barrels per Day (bbl/day) NNPC (2013). According to the United States Energy Information Administration (EIA 2012), Nigeria is the 12th largest oil producer in the world and the most prolific oil producer in Sub-Saharan Africa. The country has the capacity to produce an average of 3 million b/d if not for the problems bedevilling the Oil sector. Nigeria joined the Organisation of Petroleum Exporting Countries (OPEC) in 1971 and established the Nigerian National Petroleum Company (NNPC) in
1977; a state owned and controlled company which is a major player in both the upstream and downstream sectors. The EIA reported in the Oil and Gas Journal (OGJ, 2010), that Nigeria had an estimated 37.2 billion barrels of proven oil reserves as of the end of 2011 which is equivalent to 41.4 years of current production and 2.25% of the world’s reserves. Natural gas reserve is estimated at 165 trillion standard cubic feet (scf) including 75.4 trillion scf of non-associated gas. Due mostly to the lack of a gas processing infrastructure, 75% of associated gas is flared and 12% re-injected to enhance oil recovery. The majority of reserves are found along the country’s Niger River Delta and offshore in the Bight of Benin, the Gulf of Guinea and the Bight of Bonny. Current exploration activities are mostly focused in the deep and ultra-deep offshore with some activities planned in the Chad basin, located in the northeast of the country (OGJ, 2010).

The Nigerian economy is largely dependent on its oil sector which supplies 95% of its foreign exchange earnings and over 80% of the country’s revenue (NHCUK, 2013). Nigeria’s oil bumper breakthrough started in 1973 with the Arab-Israeli war, following the Yom Kippur (October 5) attack on Israel by Egypt and Syria (Kolawale, 2010). The Western world opposed the onslaught and, in retaliation, Arab countries placed an embargo on supplies to Israel’s sympathisers. That meant a cut in production by about 5 million barrels/day. Prices rose by 400 per cent between October 1973 and March 1974 from an average price of $3 in 1973, to $12 by December 1974 (EIA 2010). Nigeria began to benefit from the massive windfall of petrodollars as a result of the oil boom. From modest oil earnings of about $200 million in 1970, Nigeria earned $32 billion between 1973 and 1978, averaging over $6 billion oil earnings per year.

The Upstream Oil Sector:
The upstream oil industry is the single most important sector in the economy. Since December 2005, Nigeria has experienced increased pipeline vandalism, kidnappings and militant takeovers of oil facilities in the Niger Delta. MEND is the main militant organization in the Niger delta attacking oil infrastructure for political objectives, claiming to seek a redistribution of oil wealth and greater local control of the sector. Additionally, kidnappings of oil workers for ransom are common and security concerns have led some oil services firms to pull out of the country and oil workers unions to threaten strikes over security issues. Despite the problems associated with persistent ethnic unrest, corruption, insecurity and political instability, Nigeria’s wealth of oil makes it most attractive to the major oil-multinationals, most of whom are represented in Nigeria, with the major foreign stakeholder being Shell Nigeria petroleum exploration and production company (SNEPCO).

The Downstream Oil Sector:
Nigeria's downstream oil industry is responsible for the marketing and distribution of petroleum and natural gas products. The downstream sector presently has four refineries with an average refining capacity of 438,750 bbl/d. However, Problems such as sabotage, poor management, and lack of turn around maintenance, corruption and undue interference suppresses the refining capacities of these refineries. Most of the refineries often operate below 50% of their full capacity. This has resulted in shortages of refined petroleum products and the need to increase imports of refined petroleum products in order to meet domestic demand. Nigeria has a robust petrochemicals industry based on its substantial refining capacity and natural gas resources. The petrochemical industry is focused around the three centres of Kaduna, Warri and Eleme. Bunkering, which in the context of Nigeria's oil industry refers to the theft and trade of stolen oil, has been the main cause of discrepancies in the projected and actual oil revenue in Nigerian. According to NNPC data, pipeline vandalism increased by 224% in 2011 over the previous year.
Estimates from Nigeria's Ministry of Finance show that about 400,000 barrels of crude oil was stolen in April 2012, which led to a fall of about 17% in official oil sales revenue. Royal Dutch Shell, Nigeria's largest producer, recently estimated that 150,000-180,000 barrels of crude oil per day or 6% of the country's total production, on average is lost to oil bunkering and spills (Shell 2012). The company shut down its Nembe Creek Trunkline (NCTL) in April 2013 and declared a force majeure on 150,000 barrels of crude oil per day as a result of leaks caused by crude oil thieves. On the same day, the NNPC announced a drop in crude oil revenue of about $1.23 billion due to a drop in crude oil production for the first quarter of 2013.

Petroleum Industry Bill (PIB) is being debated and may be approved by the National Assembly before the end of the year 2013. The aim of this Bill is to reform the entire hydrocarbon sector in Nigeria. Some of the contentious areas most Nigerians are keen to be addressed are; the deregulation of the downstream sector, creation of new regulatory bodies to check the menace of oil bunkering and corruption, commercialisation of the NNPC, a review and renegotiation of the existing contractual agreements like Joint Ventures (JVs) and Production Sharing Contracts (PSCs) between the Nigerian Government and IOCs. The changes in tax and royalty structures, and clauses to ensure that companies use or lose their assets (PIB 2012). Full implementation of the PIB will surely transform the entire Oil and Gas sector in Nigeria.

Nigeria had an estimated 180 trillion cubic feet (Tcf) of proven natural gas reserves as of the end of 2011, according to the OGJ (2011), making Nigeria the 9th largest natural gas reserve holder in the world and the largest in Africa. Despite holding a top 10 position for proven natural gas reserves, Nigeria produced about 1Tcf of dry natural gas in 2011 and ranked as the world's 28th largest natural gas producer (CIA 2012). The majority of the natural gas reserves are located in the Niger Delta and, therefore, the sector is also impacted by the same security and regulatory issues affecting the oil industry discussed earlier.

3. ACTIVITIES IN THE OIL AND GAS SECTOR

The activities of the petroleum industry are divided into two broad categories, upstream (offshore or deep-water operations) and downstream activities (onshore or on-land operations). Upstream activities involve acquisition of mineral rights in properties, exploration, development and production of crude oil and gas. While the Downstream activities involve transporting, refining and marketing of oil, gas and derivatives. There are four major phases of crude Oil and Gas exploration and production. The Acquisition activities, Exploration activities, Development activities and production activities.

**Acquisition Activities:**
Acquisition activities are carried out by an E&P enterprise towards the acquisition of right(s) to explore, develop and produce oil and gas. Acquisition costs cover all costs incurred to purchase, lease or otherwise acquire a property or mineral right. These include lease bonus, brokers' fees, legal costs, cost of temporary occupation of the land including crop compensation paid to farmers and all other costs incurred in acquiring these rights. These are costs incurred in acquiring the right to explore, drill and produce oil and gas including the initial costs incurred for obtaining the Petroleum Exploration License (PEL) or Letter of Authority (LOA) and Mining Lease (ML).

**Exploration Activities:**
Exploration activities however cover the prospecting activities conducted in the search for oil and gas. In the course of an appraisal programme these activities include but are not limited to aerial,
geological and geophysical (G&G), geochemical, paleontological, palynological, topographical and seismic surveys, analysis, studies and their interpretation, investigations relating to the subsurface geology including structural test drilling, exploratory type stratigraphic test drilling, drilling of exploration and appraisal wells and other related activities such as surveying, drill site preparation and all work necessarily connected therewith for the purpose of oil and gas exploration. The costs incurred in exploration activities include all direct and allocated indirect expenditure which include depreciation and applicable operating costs of related support equipment and facilities. Other exploration costs are G&G survey costs, rights of access to properties to conduct those studies (e.g., costs incurred for environment clearance, defence clearance, etc.), and salaries and other expenses of geologists, geophysical crews and other personnel conducting those studies. Costs of carrying and retaining undeveloped properties, such as delay rental, ad valorem taxes on properties, legal costs for title defence, maintenance of land and lease records and annual licence fees in respect of Petroleum Exploration License are all part of exploration costs. Further costs of exploration include dry hole contributions and bottom hole contributions; costs of drilling and equipping exploratory and appraisal wells; and costs of drilling exploratory-type stratigraphic test wells.

Development Activities:
Development activities for extraction of oil and gas include the purchase, shipment or storage of equipment and materials used in developing oil and gas accumulations, completion of successful exploration wells, the drilling, completion, recompletion and testing of development wells, the drilling, completion and re-completion of service wells, the laying of gathering lines, the construction of offshore platforms and installations, the installation of separators, tankages, pumps, artificial lift and other producing and injection facilities required to produce, process and transport oil or gas into main oil storage or gas processing facilities, either onshore or offshore, including laying of infield pipelines, the installation of the said storage or gas processing facilities. Development costs cover all the direct and allocated indirect expenditure incurred in respect of the development activities including costs incurred to gain access to and prepare well locations for drilling, including surveying well locations for the purpose of determining specific development drilling sites, clearing ground, draining, road building and relocating public roads, gas lines and power lines to the extent necessary in developing the proved oil and gas reserves; drill and equip development wells, development-type stratigraphic test wells and service wells including the cost of platforms and of well equipment such as casing, tubing, pumping equipment and the wellhead assembly; acquire, construct and install production facilities such as lease flow lines, separators, heaters, manifolds, measuring devices and production storage tanks, natural gas cycling and processing plants and utility and waste disposal systems; and provide advanced recovery system. Other development costs include costs include depreciation and applicable operating cost of related support equipment and facilities in connection with development activities, and annual license fees in respect of Mining Lease.

Production Activities:
Production activities consist of pre-wellhead (e.g., lifting the oil and gas to the surface, operation and maintenance of wells, extraction rights, etc.) and post-wellhead (e.g., gathering, treating, field transportation, field processing, etc., up to the outlet valve on the lease or field production storage tank, etc.,) activities for producing oil and / or gas. The costs incurred in production activities consist of direct and indirect costs incurred to operate and maintain an enterprise's wells and related equipment and facilities, including depreciation and applicable operating costs of
support equipment and facilities. Pre-wellhead production costs include costs of labour, repairs and maintenance, materials, supplies, fuel and power, property taxes, insurance, severance taxes, royalty etc., in respect of lifting the oil and gas to the surface, operation and maintenance including servicing and work-over of wells. While Post-wellhead production costs include costs of labour, repairs and maintenance, materials, supplies, fuel and power, property taxes, insurance etc., in respect of gathering, treating, field transportation, field processing, field production, storage tank etc.

4. **OIL AND GAS ACCOUNTING METHODS:**

There are basically two alternative methods for accounting for acquisition, exploration and development and productions costs in Oil and Gas exploration and Production, viz., Successful Efforts (SE) Method and Full Cost (FC) Method

**Successful Efforts (SE) Accounting Method:**

Under the SE method, generally only those costs that lead directly to the discovery, acquisition, or development of specific, discrete oil and gas reserves are capitalised and become part of the capitalised costs of the cost centre. Costs that are known at the time of incurrence to fail to meet this criterion are generally charged to expense in the period they are incurred. When the outcome of such costs is unknown at the time they are incurred, they are recorded as capital work-in-progress and written off when the costs are determined to be non-productive. Under the SE method, the propriety of carrying forward costs incurred and subsequently matching them against future revenues depends on whether a specific cost can be identified with specific reserves. If this direct relationship does not exist, the cost should be charged to expense. If a direct association does not exist between a non-productive cost and reserves found and developed, the cost should not be classified as an asset because it is deemed to not provide future benefits in the form of cash flows. Charging non-productive costs to expense is consistent with the Framework - costs that do not result directly in future benefits are properly charged to expense. If costs related to unsuccessful ventures are not charged to expense, both current and future financial statements are distorted because those costs must eventually be removed from the balance sheet and reported in the statement of profit and loss even though they contribute nothing to future revenues.

**Full Cost (FC) Accounting Method:**

Under the FC method, all costs incurred in prospecting, acquiring mineral interests, exploration and development are capitalised and accumulated in large cost centres that may not be related to geological factors. The cost centre, under this method, is not normally smaller than a country except where warranted by major difference in economic, fiscal or other factors in the country. The capitalised costs of each cost centre are depreciated as the reserves in each cost centre are produced. Under the FC method, all costs incurred at any time and at any place in a cost centre in an attempt to add commercial reserves are an essential part of the cost of any reserves added in that cost centre. As a result they are directly associated with the enterprise's reserves in that centre and all the costs should be treated as part of the cost of the mineral assets in the cost centre. Under the FC method, in respect of a cost centre, all acquisition costs, all exploration costs and all development costs should be treated as capital work-in-progress when incurred; all costs other than the above should be charged as expense when incurred.
5. **IFRS vs. NIGERIAN GAAP**

The Nigerian Statement of Accounting Standards (SAS) or Nigerian GAAP, the UK GAAP and IFRS are in many ways different in terms of guidance and application of the standards, although, some of these standards are similar or comparable in certain areas. Most of the SAS under NG-GAAP are found to be similar to Financial Reporting Standards (FRS) and Statement of Standard Accounting Practice (SSAP) under UK-GAAP. This could be attributed to the strong interrelationships in terms of accounting education, oil and gas, business, finance, banking as well as the colonial relationship between the UK and Nigeria. The extractive industry is a specialised sector with lots of complications regarding the recognition, measurement, classification and treatment of assets in the books of Oil and Gas companies. Oil and Gas sector is characterised by heavy initial investment in terms of Exploration and Evaluation (E&E) operations. These activities require the use of high level and sophisticated technology for geological and geophysical (G&G) evaluation of the field to determine whether a commercially producible deposit of Oil and Gas is present. Despite the commitment of huge resources at the (E&E) stages, there is no guarantee that the well would produce a commercial quantity of Oil and Gas to pay for the investment. This unique nature of the extractive industry makes accounting for the Oil and Gas sector equally unique.

It is only in the extractive industry that different accounting methods (FC or SE) are used to account for the costs incurred in the acquisition, exploration, development and productions phases of Oil and Gas production. A special standard “IFRS 6 – exploration for and evaluation of mineral resources” issued by the IASB is dedicated strictly for the extractive industry to provide guidance for the treatment of acquisition, exploration and evaluation costs. In Nigeria however, SAS 14, *accounting in the Petroleum industry - Upstream Activities* and SAS 17, *Accounting in the Petroleum Industry – Downstream Activities* are the two standards that provide guidance for the treatment of all costs incurred in Oil and Gas exploration and production prior to IFRS adoption.

Most of the IASs issued by IASB have equivalent SASs issued by NASB. However certain standards issued by the NASB do not have equivalent IAS and vice versa. For instance, IAS where no equivalent SAS exist are framework for preparation of financial statements; IAS 14, Segment Reporting; IAS 18, Revenue; IAS 20, Accounting for Government Grants and Disclosure of Government Assistance; IAS 22, Business Combinations; IAS 23, Borrowing Costs; IAS 24, Related Party Disclosures; IAS 27, Consolidated Financial Statements and Accounting for Investment in Subsidiaries; IAS 32, IFRS 7, Financial Instruments: Disclosure And Presentation; IAS 39, Financial instruments: Recognition and Measurement, IAS 36 Impairment of Assets and IAS 41: Agriculture, despite agriculture being the second major source of income in Nigeria.

6. KEY ACCOUNTING STANDARDS IN NIGERIAN OIL AND GAS SECTOR

**IFRS 6: Exploration for and Evaluation of Mineral Resources:**

IFRS 6, Exploration for and Evaluation of Mineral Resources is a standard tailored specifically to the extractive industries to provide guidance for the treatment of exploration costs pending the outcome of the wider extractive industries project being executed by the IASB. However, entities transitioning to IFRS are permitted to continue using their current local accounting policy for exploration and evaluation of mineral resources (PWC 2011). Under IFRS 6, expenditures incurred in exploration activities should be expensed unless they meet the definition of an asset – when it is probable that economic benefits will flow to the entity as a result of the expenditure.

Although, IFRS 6 provides that all expenditures incurred in exploration activities be expensed unless they meet the definition of an asset. However, the treatment of exploration and evaluation (E&E) assets depends on the classification of the asset. Intangible E&E assets may include costs of exploration permits and licences while tangible E&E assets may include items of equipment and plants used for exploration activities. IFRS 6 requires entities recognising E&E assets to perform an impairment test on those assets when facts and circumstances suggest that the carrying amount of the assets may exceed their recoverable amount (KPMG 2012). The impairment should be carried out in accordance with IAS 36 Impairment of Assets once it is identified (Deloitte 2013). However, IFRS 6; exploration for and evaluation of mineral resources is limited in scope and does not provide guidance for the treatment of development and production costs. This implies that IFRS 6, does not go beyond the exploration stage. Companies are therefore, allowed by the IASB to continue using the existing guidance provided by their local standards for the treatment of development and production costs pending the completion of the on-going project being carried out by the IASB regarding the IFRS 6.

**SAS 14: Accounting in the Petroleum Industry (Upstream Activities)**

This standard was first issued in 1993 by the NASB to enhance the comparability of financial statements prepared by companies operating in the upstream sector of the petroleum industry in Nigeria (Barde 2011). The standard basically deals with accounting and reporting for upstream activities which involve the acquisition of mineral interest in properties, exploration (including prospecting), development, and production of crude oil and gas.

**SAS 17: Accounting in the Petroleum Industry (Downstream Activities)**

This standard provides a guide on accounting practices and reporting formats to be followed by companies operating in the downstream sector of the Nigerian petroleum industry. The standard applies to companies in Refining and Petrochemicals, Marketing and Distribution and Liquefied Natural gas. Downstream activities are activities that take place after the oil and gas has been produced. It involves the receipt of crude oil into crude oil tanks or gas into petrochemical tanks to the transportation of the crude to the refineries, liquefaction of natural gas, refining of the crude oil, marketing and transportation of refined/liquefied products and derivatives to the final user. In the process of crude refining, catalysts are added to the crude in order to speed up the cracking process. IFRS does not have a specific guidance on catalyst (PwC 2011), but the principles of IAS 16 and IAS 2 are used to account for catalysts. Catalysts are expensed as consumed and accounted for as an inventory and recorded at the lower cost or net realisable value (PwC 2011). NG-GAAP requires catalysts to be separated into short-life (lasts less than a year) and long-life catalysts (lasts a year or over). The costs of short life catalysts are expensed in the...
year in which they are incurred while the costs of long-life catalysts are capitalised and written off over the life of the refinery. IFRS provides that costs of major overhauls of refineries can be capitalised if the useful life of the Property, Plant and Equipment (PPE) gets extended or its productive capacity is increased. SAS17 requires the costs of turn- around maintenance (TAM) to be capitalised and amortised over the expected period before the next TAM. TAM in Nigeria is usually carried after every two years. Costs of spare parts and servicing equipment apart from major spare parts and standby equipment, are usually carried as inventory under IFRS and recognised in the profit or loss as consumed. Major spare parts and equipment qualify as PP&E when an entity expects to use them during more than one period. SAS17 requires standby equipment and spare parts to be capitalised as part of PP&E and depreciated over the expected useful life of similar equipment in use. The costs of refining or petrochemical plant and equipment should be capitalised and depreciated on a straight-line basis over the useful life of the asset.

IAS 31: Interest in Joint Ventures (JV), Production Sharing Contracts (PSCs) and Business Combination

IFRS defines joint venture as a contractual agreement whereby two or more parties undertake an economic activity that is subject to joint control. This standard provides guidance on three types of joint venture, 1) jointly controlled entities, 2) jointly controlled assets and 3) Jointly controlled operation. The jointly controlled entity is a joint arrangement that is carried out through a separate legal entity (company or partnership). Companies are allowed an accounting policy of either to account for their interest using the proportionate consolidation method or the equity method. KPMG survey of 2009 on the application of IFRS reported that over half of oil and gas companies in joint arrangements applied proportionate consolidation, with the remainder using the equity method. Jointly controlled assets and jointly controlled operations however, are joint ventures that are not separate legal entities, venturers therefore, recognise the assets and liabilities that they control and the costs incurred and income received in relation to the arrangement. The standard has been providing guidance to companies to account for these activities until the end of January 2012. A new standard IFRS 11, Joint arrangements and IFRS 12, Business combination issued in May 2011 by the IASB, with effective application periods beginning on or after 1st January 2013, have now superseded the IAS 31. IFRS 11 provides guidance on two categories of Joint arrangements, 1) Joint ventures and 2) Joint operations. In Nigeria however, two standards, SAS 28: Investment in Associates and SAS 29: Interest in Joint Venture provides similar guidance. SAS 28 provides specific requirements on accounting for associates in the consolidated financial statements under the equity method and the disclosures required. While SAS 29 establishes guidelines as to the scope of accounting for interests in Joint Ventures, the alternative methods that might be adopted and the limited circumstances under which interests in Joint Ventures might be accounted for at cost, less any provision for impairment (FRC 2011).

IFRIC 1: Changes in existing decommissioning, restoration and similar liabilities

The onshore/ offshore operations of Oil and Gas exploration and production companies can have a significant impact on the environment. Oil and Gas exploration and production companies are required by law, the terms of operating licences or an entity’s stated policy and past practice to carry out decommissioning or environmental restoration work at the end of Oil and Gas exploration and production exercise or at the end of the useful life of a PPE and other installations. There may also be environmental clean-up obligations for contamination of land that arises during the operating life of a refinery or other installations. The associated costs of
remediation or restoration can be significant. It was estimated that the £4.5 billion is expected to be spent on decommissioning assets on UK continental shelf from 2012 to 2017 (Oil and Gas UK, 2012).

IFRS provides that, the present value of the costs of dismantling, removing or restoring an oil and gas field as a result of a legal or constructive obligation is recognised as a liability and the corresponding cost capitalised as part of the related property, plant or equipment (PPE). An obligation arises either when the item is acquired or as a result of using the item during a particular period for purposes other than to produce inventories during that period. Under NG-GAAP however, CAP P10 paragraph 36, Laws of the Federal Republic of Nigeria provides that all abandonment programmes have to be approved or agreed by the head of the Petroleum inspectorate. There is therefore a legal requirement to rehabilitate the damage done to the environment. Entities are required to make provision for restoration and abandonment costs less estimated salvage values of the assets/equipment based on the best availability estimate by either of the following:
• A charge against income on a systematic basis over the full productive lives of the facilities concerned so that the accumulated provision will cover the cost of restoration or abandonment; or
• Recognising the eventual liability at the outset; the corresponding debit should be treated as a capital cost to be depreciated using the units-of-production basis

7. IFRS ADOPTION AND EXPLORATION AND EVALUATION (E&E) EXPENDITURES

Exploration and Evaluation (E&E) expenditures are those costs that are incurred by an oil and gas entity in connection with the exploration for and evaluation of mineral resources before the technical feasibility and the prospect of extracting a commercially viable quantity of oil, natural gas and similar non-regenerative resources are established. The E&E costs can be categorized into pre-exploration costs, exploration and evaluation (E&E) costs and development costs. Generally, all the E&E costs associated with identifying new reserves are capitalized. However, if the exploration of new reserves turns out to be unsuccessful (dry hole), the dry hole costs can either be expensed as incurred under the SE or capitalized to be amortized over the subsequent periods (FC). Both IFRS and NG-GAAP allow companies to choose between SE and FC for all the E&E costs. However, differences exist between the two standards in terms of treatment of costs. Whereas IFRS 6 Exploration for and Evaluation of Mineral Resources allows capitalization of E&E costs only, NG-GAAP standard SAS 14: Accounting in the Petroleum Industry (Upstream Activities) requires under the FC method, costs incurred on mineral rights acquisition, exploration, appraisal and development activities be capitalised irrespective of whether or not the activities resulted in the discovery or reserves. Such costs are usually amortised against successful finds on gross revenue or unit of production basis. Whereas, under the SE method, costs incurred prior to the acquisition of mineral rights and other exploration activities not specifically directed to an identifiable structure should be expensed when incurred.

The immediate expensing of the E&E costs under the SE method will have a significant impact on the financial statement by causing volatility in reported profits (Zori 2011)\(^1\). Under the FC method however, depreciation and amortization are more predictable, hence provides a sound

\(^1\) http://solomonzori.blogspot.co.uk/2011/09/accounting-for-exploration-evaluation.html
forecasting basis for earnings. Large oil and gas firms mostly favour the SE method in order to minimize their tax obligation whereas; small oil and gas firms apply the FC method in order to boost their assets in the statement of financial position.

8. **IMPACT OF IFRS ADOPTION ON JOINT ARRANGEMENTS: JVs AND PSCs**

The contractual relationships between international Oil and Gas companies (IOC) and host governments are governed by the newly issued IFRS 11: *Joint Arrangements* and IFRS 12: *Disclosure of Interests in Other Entities*. IFRS 11 prescribes the accounting for joint arrangement: the contractually agreed sharing of control of an arrangement which exists only when the decisions about the relevant activities require the unanimous consent of the parties sharing control (EY 2011). These arrangements are used by oil & gas companies as a way to share the higher risks and costs associated with the industry or as a way of bringing in specialist skills to a particular project (PWC 2011).

IFRS 11 prescribes two types of Joint Arrangement: joint operations’ and ‘joint ventures’. Each type of joint arrangement is aligned with a specific accounting requirement. A party to a ‘joint operation’ recognises assets, liabilities, revenues, expenses arising from the arrangement and/or its relative shares thereof, if any. whereas, a party to a ‘joint venture’ recognises an investment and must recognize in its financial statement its share of the jointly controlled assets, classified according to the nature of the assets, any liabilities that it has incurred, its share of any liabilities incurred jointly with the other venturers in relation to the joint venture, any income from the sale or use of its share of the output of the joint venture, together with its share of any expenses incurred by the joint venture; and any expenses that it has incurred in respect of its interest in the joint venture. Each venturer must also recognise its share of any liability associated with decommissioning activities. The joint venture is required to apply equity accounting to account for this investment. This method requires that all investment in Jointly Controlled Entities (JCE) be initially recognized at cost.

9. **IFRS ADOPTION AND DECOMMISSIONING EXPENDITURE**

The onshore/ offshore operations of Oil and Gas exploration and production companies can have a significant impact on the environment. Decommissioning is the act of dismantling, removal, taken service or disassembling of redundant oil and gas installations (rigs, pipes etc). In circumstances where certain oil and gas structures cannot be removed, an exceptional case of derogation can be made. Details of the requirement of IFRS and NG-GAAP on decommissioning expenditure have been presented earlier on.

10. **IFRS ADOPTION AND INCOME TAXES**

The adoption of IFRS in Nigeria will greatly impact the system and administration of the country taxation. Taxation in the Oil and Gas sector is regulated by the Petroleum Profits Tax Act Cap P13 LFN 2004 (PPTA). However, the legislative framework relating to the oil and gas industry is currently being overhauled and is likely to have a significant impact on the Nigerian oil and gas industry. The draft of the Petroleum Industry Bill (PIB) which is aimed at restructuring the entire oil and gas sector is currently before the Nigerian parliament waiting to be passed into law. The draft contains changes to taxation regimes, improved economies for small, onshore developments, review of JVs and PSCs and an amended royalty structure.
Petroleum taxes generally fall into two main categories – those that are calculated on profits earned (income taxes) and those calculated on sales (royalty or excise taxes). In Nigeria, the profits of the oil producing companies are chargeable to tax under the PPTA and are also governed by the terms of any relevant memorandum of understanding or PSC. The tax rate under the PPTA is 85% for JV companies and 50% for PSC companies operating in deep offshore sites. However, a special rate of 65.75% applies when a company has not yet started the sale or bulk disposal of chargeable oil under a programme of continuous production, and all preproduction capitalized costs have not been fully amortised (Ajayi 2013). Capital allowances are charged at the rate of 20% per annum in the first four years of production, 19% in the fifth year and the remaining 1% retained in the books of the company. Firms in PSCs are however, entitled to an investment tax credit of 5%. Royalty is payable in ranges from 0 – 20% of production, depending on the location and depth of the area of production. Other taxes and levies in the oil and gas sector include the education tax at 2% and the Niger Delta Development Commission (NDDC) levy at 3%. VAT is generally applicable to oil and gas operations at a flat rate of 5%. The classification and treatment of taxes under different accounting regimes will have a significant impact on the firm’s financial statement.

11. **IFRS ADOPTION AND FINANCIAL STATEMENT DISCLOSURES**

It is a statutory requirement for companies to provide supplementary information regarding the basis and justification for the preparation of their financial reports. Financial statement disclosures are secondary information provided by companies to clarify, interpret or justify certain published financial information. Disclosures normally provide further clarity of the financial information in order to assist users with additional information for the purpose of making informed investments decisions in the business. Management also uses disclosures to attest to the accuracy and validity of reported financial information.

Private companies are not required to disclose certain financial information regarding the company. However, listed companies are mandatorily required to disclose certain information regarding the company in order to fulfil the requirements of the Securities and Exchange Commission (SEC) and other regulatory bodies. Companies voluntarily disclose their financial information.

In Nigeria the information disclosure requirements in the financial statements under NG-GAAP were grossly inadequate to effectively bridge the information asymmetry between companies and the users of the financial statements. However, reporting under the IFRS regime requires companies especially in the Oil and Gas sector to make more disclosures regarding their reserves, discoveries and other key variables necessary for investment decision and to meet objective of financial statements, which is to show a true and fair view of the activities of a company. It is therefore envisaged that the companies will disclose more of their financial information with the transition from the NG-GAAP to IFRS.

12. **IFRS ADOPTION AND KEY PERFORMANCE INDICATORS**

For the purpose of this study, key performance indicators (KPIs) refer to profitability, liquidity and gearing measures mostly used by firms to determine their financial strengths, weaknesses and ability to honour their obligation as they fall due. A study conducted by Lantto and Sahlstrom (2009) on the impact of IFRS adoption on key financial ratios of Finnish listed firms, shows that the adoption of IFRS changes the magnitude of the key accounting ratios of Finnish companies.
Profitability ratios increase by 9-19% and the price-to-earning (PE) ratios decrease by 11%, gearing ratios increase by 2.9% while equity ratios decrease by 0.2%. Punda (2011) based his study on Lantto and Sahlstrom (2009) and examined the effects of IFRS adoption on key financial ratios of UK listed firms. He reported a substantial change in the KPIs of these firms post IFRS adoption. All the three profitability ratios significantly increased: Operating Profit Margin (OPM) increased by 10.8%, Return on Equity 27.0% and Return on Invested Capital (ROIC) by 11.4%. However, current ratio (CR) and price-to-earning (P/E) ratios have not shown such significant change, but still change by 4.2% and -2.9% respectively. Hung and Subramanyan (2004) investigate the effect of IFRS adoption on the financial statement of German listed firms. They reported that the total assets and book values of equity as well as variability of book value and net income are significantly higher under IAS/IFRS than the under the German GAAP. Blanchette et al (2011) however examined the impact of transition from Canadian GAAP to IFRS on financial ratios in the areas of liquidity, leverage coverage and profitability. They reported a significantly higher volatility to most of the ratios under IFRS when compared to those derived under pre-changeover Canadian GAAP. In Nigeria, Tanko (2012) reported that firms in Nigeria (some selected banks) under IFRS tend to exhibit higher values on a number of profitability measures such as EPS.

Financial Ratios:
Financial ratios are used by Investors, bankers, brokers and other stakeholders to analyse the financial condition and performance of a company, establish covenants in lending agreements or for other commercial arrangements (Blanchette 2011).

The four ratios commonly used in practice to assess firms are; the Liquidity, Leverage, Coverage and Profitability.

The difference in recognition and measurement of accounting figures under IFRS and NG-GAAP may directly affect the numerator of ratio calculations, their denominator or both. Data will be collected from the audited financial statements of listed Oil and Gas firms in Nigeria directly from their websites and other reliable sources for this analysis. The financial ratios will be calculated from financial statements prepared under the NG–GAAP and compared to financial ratios calculated from financial statements prepared under the IFRS. An empirical analysis will be performed on the differences followed by tests equality of means, medians and variances between each series of ratios to ascertain if the distributions differ under NG-GAAP and IFRS. Least-square regressions will also be used to analyse the relationship between the IFRS and NG-GAAP ratios.

The four ratios commonly used in practice to assess firms are; the Liquidity, Leverage, Coverage and Profitability. However, because of the complex nature of Oil and Gas sector, other coverage ratios and common stock valuation ratios will also be computed and analysed.

1) **Liquidity Ratios:**
   - Current Ratio (CR) = Current Assets/Current Liabilities
   - Quick Ratio (QR) = (Current Assets – Inventory)/Current Liabilities

2) **Leverage Ratios:**
   - Debt Ratio = Total Liabilities/Total Assets
   - Equity Ratio = Shareholder’s Equity/Total Assets
Debt to Worth = Total Liabilities / Shareholders’ Equity

3) **Coverage Ratio:**
   - Interest Coverage = EBIT/Interest Expense
   - Operating Cash Flow Ratio = Operating Cash Flow/Current Liabilities

4) **Profitability Ratios:**
   - Return on asset (ROA) = Net profit / Total assets
   - Return on equity (ROE) = Net profit / Shareholder’s Equity
   - Asset turnover = Net sales / Total assets
   - Return on invested capital (ROIC) = Operating profit / (Total liabilities + Shareholders’ equity)
   - Gross profit margin = Gross profit / Net sales
   - Operating profit margin = Operating profit / Net sales
   - Net profit margin = Net profit / Net sales

5) **Common Stock Valuation Ratios:**
   - Price to Earnings Ratio (P/E) = Stock Price per Share/Earnings per Share
   - Price to Cash flow Ratio (P/CF) = Stock Price per Share/Operating Cash Flow per Share
   - Price to Sales Ratio (P/S) = Stock Price per Share/Net Sales (Revenue) per Share
   - Price to Book Value of Ratio (P/BV) = Stock Price per Share/Shareholder’s Equity per Share

6) **Industry Specific Ratios:**
   - Crude Reserve-Replacement Ratio (%)
     \[ RRR = \frac{\text{Extensions and Discoveries} + \text{Improved Recoveries}}{\text{Production}} \]
     This ratio measures a company’s ability to continue to operate in the future by measuring the extent to which the company is replacing the reserves it is producing.

   - Reserve Life Ratio (RLR years) = \( \frac{\text{Proved Reserves}}{\text{Production}} \)
     Approximates the number of years that reserves would continue if no new reserves discovered

   - Reserve Cost Ratio = Finding Costs per BOE
     \[ \text{Costs per BOE} = \frac{\text{G&G costs} + \text{Exploratory drilling costs}}{\text{Reserve extensions and discoveries}} \]
     Looks at cost per barrel of oil (or BOE); the lower the cost, the more the future profitability

   - Average Daily Crude Oil Production per Well
     \[ \text{ADP/Well} = \frac{\text{Annual production}/365}{\text{Net wells}} \]
     The higher the daily production per net well, the higher the future profitability
The financial ratios under the NG–GAAP will be compared with financial ratios under the IFRS. An empirical analysis will be performed on the differences followed by tests for equality of means, medians and variances between each series of ratios to ascertain if the distributions differ under NG-GAAP and IFRS as in Blanchette (2011).

13. RESEARCH DESIGN

The sample for this study consists of 14 Oil and Gas firms listed on the Nigerian Stock Exchange that prepared and presented their financial reports in compliance with the provision of the IFRS in 2012. Financial reports of Oil and Gas firms prepared and presented from 2009 to 2011 under the NG-GAAP or SAS (Pre-adoption period) and those prepared and presented from 2012 to 2014 under the IFRS (Post-adoption period) will be used for the analysis. A case study research method which involves the use of mixed methods (qualitative and quantitative) will be employed for the purpose of this research. The mixed method as argued by (Fielding and Fielding 1979) provides more perspective on the phenomena being investigated. The quantitative method will be applied to investigate the impact of IFRS adoption on the KPIs of Oil and Gas firms while the qualitative approach will involve the use of questionnaires followed by interviews to investigate the impact of IFRS adoption on the financial statements of Nigerian listed oil and gas firms in terms of E&E expenditures, Decommissioning expenditures, financial information disclosures as well as the overall impact on the structure and presentation of financial reports.

14. CONCLUSION

The adoption of International Financial Reporting Standards by various jurisdictions around the world is viewed with mixed reactions. Proponents of IFRS adoption argue that a single global accounting standard has the prospects of improving information quality across borders and will foster cross border investments. They further argue that with a single set of global accounting standard, comparability of financial statements would be achieved leading to reduction in information processing costs associated with different national accounting standards and thereby reducing the overall cost of capital as shown by previous researches (e.g., Diamond and Verrecchia [1991], Baiman and Verrecchia [1996], Leuz and Verrecchia [2000], Easley and O’Hara [2004], and Barth, Konchitchki, and Landsman [2006]).

Opponents of IFRS adoption however, countered that a single set of accounting standards might not accommodate the differing political, economic, social and cultural features of other jurisdictions. Ball [1995], Ball, Robin, and Wu [2003], and Ball [2006]) argued that it is unclear if investors benefit simply from IFRS adoption. They argue that the potential IFRS adoption benefit will simply be wiped out by the differential or tax implementation.

This study intends to contribute to this debate by investigating the potential benefits or otherwise of IFRS adoption in Nigeria. The study investigates the implication of the adoption of IFRS on Nigerian listed Oil and Gas companies because of the unique nature of this industry. It is only in the Oil and Gas sector that heavy investment does not guarantee a commensurate return. The sector is also characterised by risks and uncertainties in the exploration and production processes. Oil and Gas sector has a unique accounting system, the SE and FC methods. Companies are allowed to use either method to account for their E&E expenditures and other costs incurred in the exploration process. IFRS 6: Exploration for and evaluation of mineral resources is the standard designed by the IASB specifically for the Oil and Gas sector to provide firms with
guidance on recognition, classification and measurement of their assets. These characteristics make the Oil and Gas sector a unique industry worthy of investigating. The Nigerian economy is heavily dependent on this sector. According to the International Monetary Fund (IMF 2011), Oil and Gas sector accounts for over 95% of the country’s export earnings and about 40% of government revenues. Therefore investigating the effects of IFRS adoption on the Oil and Gas sector, is like investigating the effects of the policy on the Nigerian economy as a whole. The contribution of this research to literature and knowledge is enormous because it is the pioneer empirical study that investigates the impacts and implications of IFRS adoption on Oil and Gas firms in Nigeria.

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