

National Oil Companies in Africa, and How They may Improve Their Competitiveness

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Abstract

Several national oil companies (NOCs) in Africa grapple with corruption, nepotism, indebtedness, and operational inefficiency, which impinge on their overall performances. Keen to overturn some of these challenges, some petroleum rich countries on the continent have of late, sought to reform their NOCs, as part of sector wide reforms in a bid to make them more efficient, plug leakages, and streamline their operations. Notable among these countries are Nigeria, and Angola, Africa's top crude oil producers. This article examines some of these initiatives, and enquires into whether they are significant enough to address the fundamental issues confronting NOCs on the continent. Drawing lessons from countries such as Norway and Brazil, it will contend that there is a nexus between NOC privatisation, petroleum sector liberalisation, and internal reforms, with NOC performance. To that end, it argues that African NOCs will benefit immensely if their owners apply these strategies, although within localised contexts, and concludes by making insightful suggestions on how African NOCs may improve their overall competitiveness.

I. Introduction

Africa is blessed with abundant petroleum resources. It is home to about 7.6 percent, and 7.5 percent of the world's crude oil, and natural gas deposits, respectively.³ Most these resources are situated in Libya, Nigeria, Angola, Algeria, South Sudan, Gabon, Equatorial Guinea, and Egypt.⁴ These countries have one thing in common: they have all established fully state owned national oil companies (NOCs) which function primarily as gate keepers, part sector regulators, asset managers, and as revenue earners.⁵ A number of these firms have not however performed optimally, as several of them grapple with corruption, indebtedness, nepotism, inefficiency, and weak operational capacity, which have weakened their overall performances, governance, and output.⁶

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³ The bulk of these resources can be found in Nigeria, Angola, Egypt, and Algeria. Other countries on the continent that are rich in oil and gas resources include: South Sudan, Equatorial Guinea, Chad, Ghana, Sao Tome and Principe, Gabon, Tunisia, the Republic of Congo. See BP, 'Statistical Review' (2016), available at [https://www.bp.com/content/dam/bp/pdf/energy-economics/statistical-review-2016/bp-statistical-review-of-world-energy-2016-full-rep\(nort\).pdf](https://www.bp.com/content/dam/bp/pdf/energy-economics/statistical-review-2016/bp-statistical-review-of-world-energy-2016-full-rep(nort).pdf), accessed 31 July 2017

⁴ There are also new entrants like Liberia, Ghana, Uganda, Tanzania, and Kenya.

⁵ Some of these firms include the Nigerian National Petroleum Corporation (NNPC) of Nigeria, Sociedade Nacional de Combustíveis de Angola-Empresa Pública, ('Sonangol'), Sonatrach of Algeria, GePetrol of Equatorial Guinea, Egyptian General Petroleum Corporation, EntrepriseTunisienned'ActivitésPétrolières of Tunisia, Nilepet of South Sudan, and the Ghana National Petroleum Corporation. In principle most of these countries have also established separate regulators or ministries of energy/petroleum. Practical control over these sectors, however lie with the NOCs in virtually every instance.

⁶ See SL Eller et al, 'Empirical Evidence on the Operational Efficiency of National Oil Companies' (2007) James A. Baker III Institute for Public Policy of Rice University and Japan Petroleum Energy Center. Stacy L. Eller et al, see also DG Victor et al (eds) Oil and Governance State-owned Enterprises and the World Energy Supply (Cambridge University Press, 2012), 23.

Keen to improve the performances of their NOCs, some Petroleum Producing Countries (PPCs) in Africa, have initiated measures aimed at improving the capabilities and governance of their NOCs as part of an overall bid to reform their petroleum sectors, notable among which are Nigeria and Angola, Africa's top oil producers. In this respect, Nigeria has for some time now considered partially privatising the Nigerian National Petroleum Corporation (NNPC), while Angola seeks to restructure the Sociedade Nacional de Combustíveis de Angola-Empresa Pública, ('Sonangol'). In the same vein, Algeria aims for Sonatrach to be among the top five NOCs in the world through its vision 2030.

This article critically examines some of the measures proposed, or put in place in these countries. It acknowledges the fact that vibrant African NOCs can play vital roles in spearheading the industrialization drives of some of these countries. It however posits that if PPCs on the continent are to succeed in developing vibrant and viable NOCs, they would have to employ multi-faceted strategies aimed at strategically addressing some of the unique challenges confronting these firms. Secondly, it will argue that African NOCs should be made to operate in fully or semi-liberalised environments, as a direct means of fostering their competitiveness and efficiency. Then it explores the potentials of partial privatisation in conferring African NOCs with some form of operational financial autonomy. Lastly, it argues that beyond external sector wide reforms, internal reforms are also required if African NOCs are to curb waste and improve their overall performances. In order to create a comparative context for the analysis that will be put forward in this book, the article will draw extensively from the experiences of Brazil, and Norway.

While it is conceded that some of the ideas advocated here are not necessarily novel, this article adds to the literature on NOCs, by examining recent initiatives which have been put forward in countries such as Nigeria, Algeria, and Angola in the wake of the glut that hit the global petroleum industry between 2014 and 2016.⁷ Including the introduction, the article is divided into 5 main parts. Part 2 will make a case for strong and vibrant NOCs in Africa, while part 3 examines the performances of African NOCs and the issues confronting several of them. Part 4 examines the nexus between petroleum sector liberalisation, partial privatisation, and corporate restructuring, in improving the performances of African NOCs. In that regard, it draws lessons from Brazil and Norway, while also analysing the reform initiatives adopted or proposed by Nigeria, Angola, Algeria, and Egypt. The article is concluded in part 5 with suggestions on how African PPCs may combine laws and policies in order to reposition their NOCs for greater efficiency and profitability.

II. The Search for African Champions

It is not for nothing that NOCs are called national champions. For that is what they are. These firms generate billions of dollars annually by being actively involved in the value chain of the petroleum sectors of their home states.⁸ In fact the budgets of the richest PPCs in the world such as Saudi Arabia, Iran, Iraq, Kuwait, Qatar, Nigeria, Algeria, Angola, and Equatorial Guinea, are funded mainly from NOC earnings.⁹ Because of their size and weight, NOCs are also routinely used to advance socioeconomic and welfarist objectives in their home states as a means of wealth redistribution.¹⁰ Thus they routinely subsidize petroleum, invest massively in research, grant scholarships, build universities etc.¹¹

⁷ On NOCs in general, see, D Hann, 'National Oil Companies' (1982) 10(1) Energy Policy, 68-69, P Stevens, 'National Oil Companies and International Oil Companies in the Middle East: Under the Shadow of Government and the Resource Nationalism Cycle' (2008) 1(1) Journal of World Energy Law & Business, 5.A Cheon, et al, 'Instruments of Political Control: National Oil Companies, Oil Princes, and Petroleum Subsidies' (2015) 48(3) Comparative Political Studies, 370-402, and M Olsen, 'The Future of National Oil Companies in Russia and How they May Improve their Global Competitiveness' (2013) 35 Hous. J. Int'l L. 617, at 619.

⁸ Most NOCs are involved in exploration and production, pipelines, gas development, refining, marketing of petroleum products, etc.

⁹ For example, Mexico's NOC Pemex, besides having immense symbolic national importance, provides about a third of the revenues of the government. See TR Samples and JL Vittor, 'Energy Reform and the Future of Mexico's Oil Industry: the Pemex Bidding Rounds and Integrated Service Contracts (2011) 7 Tex. J. Oil Gas & Energy L. 215 2011-2012, 216. Similarly, Petronas remains the single-largest contributor to Malaysia's government revenues, see S Tordo and Y Anouti, 'Local Content in the Oil and Gas Sector: Case Studies' (2013) World Bank Studies, <http://extrayendotransparencia.grupofaro.org/wp-content/uploads/2014/12/LC-in-the-oil-and-gas-sector-Case-Studies.pdf>, 139.

¹⁰ S Tordo et al, 'NOCs and Value Creation (2011) World Bank Working Paper No. 218

<http://siteresources.worldbank.org/INTOGMC/Resources/9780821388310.pdf>, accessed 2 January 2016, 6. Angola for instance, uses Sonangol not only as a revenue earner, but as a political tool. For instance the firm financed most of Angola's long civil war against separatists and rebels. See S Stevens, 'Sonangol, Angola's Charm Offensive' (2016) Natural Resource Governance Institute

<http://www.resourcegovernance.org/sites/default/files/documents/sonangol-angolas-charm-offensive.pdf>, accessed 22 November 2016.

It is also typical to use NOCs to promote and ensure 'oil sovereignty' and as a means of ensuring that hegemony over the petroleum sectors of PPCs are not left in the hands of international oil companies (IOCs). Again, these firms are able to take advantage of their collaborations with private oil companies (POCs) to monitor their operations, and carry out part regulatory functions more effectively than formal administrators, which may struggle with information asymmetry issues.¹² NOCs are also used as gatekeepers to their petroleum sector. In this regard, they harness their capabilities and competencies acquired over time, to negotiate and interact with IOCs, in order to protect an advance the interests of their home states.

NOCs can also be used by their owners as a vehicle for the advancement of local content objectives. In effect, these firms spearhead the backward and frontward linkages between their petroleum sectors, and the rest of their home states.¹³ In addition, they have also provided employment for a large number of people at home, while their competencies have also been deployed to other sectors of the economies of their home states. It is also no secret that several PPCs currently anchor their industrialization objectives on NOCs. This is understandable, since these firms often operate in very challenging terrains, and are often forced to innovate and develop solutions and strategies to complex problems, which can be subsequently deployed to other related sectors of the economies of their owners such as shipping, engineering, environmental protection, and construction.

Whether an NOC is able to effectively carry out the above functions will however depend on whether or not it is efficiently managed and run, and whether there are adequate incentives for it to operate within a context of good governance, in a professional and ethical manner. The truth is that an inefficient NOC, rather than being an advantage, can actually serve as a drain on PPCs. In fact, a poorly managed NOC can act as a 'state within a state', be unaccountable and be unwieldy. Such a firm may be totally divorced from the objectives and policies of its owners, and may have to contend with corruption, nepotism, waste, and mismanagement of huge state funds. NOCs like NNPC of Nigeria, PDVSA of Venezuela, and Sonatrach of Algeria, have all grappled with corruption to the detriment of the public citizens of those countries. In contrast, the NOCs of countries like Norway, Malaysia, and Brazil, Statoil, Petronas, and Petrobras respectively, striven to operate efficiently over time, they have played critically important roles in the governance of their petroleum sectors. These firms have been able to develop adequate competencies while also maintaining some level of autonomy and professionalism similar to that found in the most viable IOCs. This has helped them to pursue their commercialisation objectives while at the same time factoring in state interests. Today, these firms are able to operate not only in their home states, but also in foreign terrains far removed from their homes. They represent a new breed of NOCs: firms which are rooted in state ownership, but which at the same time operate like IOCs in their objectives, mode of operations, governance, and technological capacity.

In view of the many advantages which a vibrant NOC can bring to bear on the management of the petroleum sectors of African PPCs, it is imperative that African PPCs strive to develop adequately strong NOCs. In effect, if African PPCs are going to succeed in reinventing themselves in the years to come, they should as a matter of urgency, focus on developing vibrant NOCs: firms which will operate like POCs, while at the same time poised to advance the interests of their home states. The question then whether this is possible. In effect, can African NOCs operate efficiently while simultaneously advancing the domestic interests and policies of their owners? Is it possible for Africa to develop and build NOCs with international clout like Petrobras and Statoil? Admittedly this will not be easy since conflicts often arise between state objectives and the commercialization goals of the managers of these firms. Where these occur, the latter often give way to the former, with consequences on their overall performances and output.

¹¹ For example, Venezuela's PDVSA funds healthcare, housing, education and other socially inclined programmes at great cost, in addition to subsidize fuel See JD Fry and E Ibrahim, 'Reassessing Venezuela's Organic Hydrocarbon Law: a Balance between Sovereignty and Efficiency?' (2013) 6 (3) JWELB, 247. Again, NNPC, Sonangol, Petrobras, and a host of other NOCs, have at one time or the other been used to sell petroleum to the public at subsidized rates. For example Sonangol takes on other responsibilities geared towards public benefits such as the provision of low cost housing. See E Cropley, 'Exclusive: Isabel dos Santos Pledges Transparency, Efficiency at Angolan state Oil Giant' *Reuters* (9th June 2016) <http://uk.reuters.com/article/us-angola-sonangol-exclusive/exclusive-isabel-dos-santos-pledges-transparency-efficiency-at-angolan-state-oil-giant-idUKKCN0YV26V>, accessed 11 October 2017. Similarly, NNPC is recently diversified into Nigeria's health sector. NNPC, 'NNPC Commences Diversification into Health Sector' (21ST April 2017) <http://nnpcgroup.com/PublicRelations/NNPCinthenews/tabid/92/articleType/ArticleView/articleId/763/NNPC-Commences-Diversification-into-Health-Sector.aspx>, accessed 11 October 2017.

¹² P Stevens, *supra* note 5, 10.

¹³ See P Subai, *Content Law Oil and Gas Law in Africa: Lessons from Nigeria and Beyond*, (Routledge, 2019) see chapter nine generally.

It is now intended to briefly examine the performances of African NOCs as well as some of the common challenges confronting them, before offering thoughts on strategies which can be deployed by their owners in order to improve their overall performances.

III. Performances and Challenges of NOCs in Africa

Typically, most African NOCs play important roles at virtually every level of the value chain of the petroleum sectors of their home states. First, many of them are routinely used as agents of state participation by their governments.¹⁴ In that capacity, they manage the upstream investments of their governments, collaborate with IOCs and other POCs, and are also involved in midstream and downstream operations.¹⁵ Over time these firms have been at the helm of piloting the affairs of the petroleum sectors of their home states as asset managers, and upstream operators. But while some of them have been relatively successful in some areas such as asset management,¹⁶ and in the upstream operations,¹⁷ majority of African NOCs are bedeviled by similar challenges such as weak upstream and downstream operations. This means that for the most part, they rely heavily on collaborations with IOCs and other POCs, rather than on their own capabilities. For example, the sole upstream operations of Nigeria's NNPC, contributes only about 7.3 percent, while Sonangol contributes just about 3 percent of Angola's daily crude oil production.¹⁸

And in the downstream, NNPC's refineries currently operate at less than 10 percent of their combined installed processing capacities,¹⁹ while the installed processing capacity, of Sonarel, Sonagol's refining subsidiary, currently accounts for less than 4 percent of Angola's daily crude oil production.²⁰ In effect, limited refining capabilities accounts for why Nigeria, Angola and several African NOCs remain net importers of petroleum, despite being crude oil producers.²¹

¹⁴ These firms are the NOCs of Algeria, Equatorial Guinea, Egypt, Tunisia, Nigeria, and Algeria. Others include Nilepet of South Sudan, and the Ghana National Petroleum Corporation. In principle most of these countries have also established separate regulators or ministries of energy/petroleum. Practical power however lies with the NOCs in virtually every instance

¹⁵ NNPC for instance, maintaining an extensive network of pipelines, four refineries, and distributes petroleum products to the Nigerian public through a chain of country wide petrol stations, and Sonangol also directly also involved in distribution of petroleum, besides owning a refinery through its subsidiary, Sonarel. NNPC, 'Refineries and Petrochemicals' Available at <<http://nnpcgroup.com/NNPCBusiness/MidstreamVentures/RefineriesPetrochemicals.aspx>> Accessed 11 October 2017; see also L Corkin, 'After the Boom: Angola's Recurring Oil Challenges in a New Context' Oxford Institute for Energy Studies (May 2017) Available at <<https://www.oxfordenergy.org/publications/boomnnpco-angolas-recurring-oil-challenges-new-context/>> Accessed 7 September 2017, 6

¹⁶ For example, despite having its own challenges, Sonangol has earned the accolades of pundits for being able to competently manage Angola's upstream assets. As sole concessionaire, the firm has had some success in its relationship with its IOC. In that regard, it has largely defended the interest of the Angolan government, advanced local content, and effectively monitored its upstream partners for the advantage and benefits of the Angolan people. See PRP Heller, 'Angola's Sonangol: Dexterous Right Hand of the State' in David G. Victor, et al, (eds) *Oil and Governance State-owned Enterprises and the World Energy Supply*, Cambridge (2012), 865; see also JS Ovadia, 'The Dual Nature of Local Content in Angola's Oil and Gas Industry: Development vs. Elite Accumulation' (2012) 30 *Journal of Contemporary African Studies*, 403; Farouk Al-Kasim et al, 'Corruption and Reduced Production: an Additional Resource Curse Factor?' (2013) 54 *Energy Policy*, 144; See also De Oliveira and Ricardo Soares, 'Business Success, Angola' (2007) 45(4) *The Journal of Modern African Studies*, 595-619.

¹⁷ In the same vein Sonatrach of Algeria, despite being bedeviled by board instability and corruption through the years, has been able to develop viable and relatively competitive upstream competence. In addition to its dominant roles in the Algerian petroleum sector, it is also involved in some foreign operations in countries such as Libya, Venezuela, Peru, Yemen, and Mauritania. .

¹⁸ See NNPC' Monthly Financial Report March (2018), Available at <<http://nnpcgroup.com/Portals/0/Monthly%20Financial%20and%20Operations%20Data/Full%20Reports/NNPC%20Monthly%20Financial%20%20Operations%20Report%20for%20the%20Month%20of%20March%202018.pdf>> Accessed 30 July 2018; Africa Oil and Gas, 'Dos Santos Didn't Fire the Top Sonangol Board' Available at <<http://africaoilgasreport.com/2016/12/petroleum-people/dos-santos-didnt-fire-the-top-sonangol-board/>> Accessed 10 October 2017, See also T Hodges, 'Angola: From Afro-Stalinism to Petro-diamond Capitalism' (IUP 2001), 128

¹⁹ Ibid

²⁰ See L Corkin supra note 13

²¹ Other African PPCs which are high net importers of refined crude include: Gabon, Ghana, and South Sudan, etc.

Several African NOCs also have issues with overstaffing, high operating costs, and low profitability borne out of the fact that several of them are used as agents of social welfare. These firms are also routinely used to execute projects which are not necessarily commercially viable.²² For example, several African NOCs such as those of Algeria, Nigeria, Angola, Gabon, Egypt, etc., are being used, (or were used) to subsidize imported petroleum products for domestic consumption. This understandably, has negatively impacted their profits for decades.²³

Furthermore, because the practice of cronyism and nepotism are rife in several of African PPCs, it is often the case that NOCs in the continent are managed by close relatives or friends of those in power, in order to protect narrow interests. For example, Gabriel Nguema Lima, Equatorial Guinea's Energy Minister and son of President Teodoro Obiang Nguema of Equatorial Guinea, the country's current minister for mines, industry, and energy, was also head of GE Petrol, at a time.²⁴ Similarly, Sonangol of Angola, was until recently, operated as an extension of the Jose Eduardo Dos Santos' dynasty (1979-2017). The fall out was that Isabel Dos Santos and Filomeno Dos Santos, scions of Jose Eduardo Dos Santos were appointed to head Sonangol, and Angola's Sovereign Wealth Fund, respectively.²⁵ Similarly, NNPC, which answers to Nigeria's president (who also doubles as Petroleum Minister), is also widely perceived as a patronage tool for the furtherance of rentier interests.²⁶ Besides exposing NOCs to corruption, nepotism and cronyism have also eroded the professionalism, independence, and stability of the boards of several African NOCs. For example, NNPC and Sonatrach have had 9 and 10 CEO's in the past ten years, respectively.²⁷ This has understandably, affected continuity of policies, besides making the boards of these firms to be susceptible to the dictates of the political class. Closely aligned to the issue of nepotism is the fact that several African NOCs are largely unaccountable and unwieldy. In fact these firms often chose to operate as a 'state within a state', rather than pursue public interests.²⁸

Several of them are thus largely perceived as lacking in probity, with their dealings often conducted in secrecy, under the guise of confidentiality.²⁹ Then there is the fact that some of them have struggled with indebtedness amid funding challenges.³⁰ Record low oil prices between 2014 and 2016, led to serial defaults of some African NOCs to creditors. But for state support, some of them would have been brought to the brink of bankruptcy.³¹ In addition to all these some of these firms have had to grapple with insecurity, which again has impacted their profits negatively.

²² For example, Sonangol executes responsibilities geared towards public benefits such as the provision of low cost housing. See E Cropley, supra note 9. Similarly, NNPC is recently diversified into Nigeria's health sector. NNPC, 'NNPC Commences Diversification into Health Sector' (21st April 2017) Available at <<http://nnpcgroup.com/PublicRelations/NNPCinthenews/tabid/92/articleType/ArticleView/articleId/763/NNPC-Commences-Diversification-into-Health-Sector.aspx>> Accessed 11 October 2017.

²³ See K Siddig et al, 'Impact of Removing Fuel Import Subsidies in Nigeria on Poverty' (2014) 69 *Energy Policy*, pp. 165-178

²⁴ See LO Fernandes, 'Oil, Instagram and the Plunder of Equatorial Guinea' *New York Times* (27th November 2017)

<https://www.nytimes.com/2017/11/27/opinion/equatorial-guinea-obiang-vice-president-corruption.html>, accessed 28 January 2019

²⁵ Isabela dos Santos headed the firm between 2016-2017, while her brother headed Angola's sovereign wealth fund between 2013 and 2017. A England, 'Angola Fund Chief José Filomeno dos Santos Rebuffs Nepotism Charge' *Financial Times* (7th July 2013) Available at <<https://www.ft.com/content/7df27eb0-e483-11e2-a74d-00144feabdc0?mhq5j=e7>> Accessed 10 October 2017.

²⁶ See Mark C. Thurber et al, 'NNPC and Nigeria's Oil Patronage Ecosystem', in David G. Victor (eds) *Oil and Governance State-owned Enterprises and the World Energy Supply* (Cambridge 2012) 701.

²⁷ L Chikhi, 'Algeria's State Oil Firm Gets New Management, Targets Brain Drain' *Reuters* (13th January 2018),

<https://af.reuters.com/article/investingNews/idAFKBN1KY0MO-OZABS>, accessed 24 January 2019

²⁸ In the course of writing this article for instance, Dr. IbeKachikwu, who heads Nigeria's Ministry of Petroleum Resources, and sits as chair over the NNPC Board, is involved in a squabble with the GMD of NNPC, Dr. MaikantiBaru, who he accuses of side-lining and marginalising him in a petition to the Nigerian president. The protection both firms get from the government in power has caused them to treat formal regulators disdain and as an irritant. As at the time of this writing for instance, there has been a public spat between the Group Managing Director of NNPC, and the Minister of State for Petroleum, Dr. IbeKachikwu, with the latter accusing the former of neglecting and ignoring his oversight over NNPC, and rather going straight to the President for approvals. See R Abati, 'Kachikwu, Baru, and the NNPC Debacle' *Thisday* (10th October 2017) Available at <<https://www.thisdaylive.com/index.php/gggg017/10/10/kachikwu-baru-and-the-nnpc-debacle/>> Accessed 11 October 2017.

²⁹ For instance, the audited accounts of NNPC have not been made public in decades 'Waiting for NNPC's Audited Accounts?' *Business Day* (9th August 2017) Available at <<https://www.businessdayonline.com/waiting-nnpcs-audited-account/>> Accessed 7 October 2017. While Sonangol is exempted by virtue of articles 4 and 68 of Law 13/2004, Angola's Petroleum Law, from making its payments to the Angolan state, public

³⁰ NNPC's indebtedness to its IOC Partners, is legendary. Consistent failure to meet its cash call obligations saw the firm's indebtedness to its partners rise to over \$5 billion. This not only slowed the operations of its Partners, but also discouraged further investments. In July 2018 however, it succeeded in paying about \$1 billion of the debt to its creditors. 'JV Cash Calls: IOCs commend NNPC' *Vanguard* (4th July 2017) Available at <<https://www.vanguardngr.com/2018/07/jv-cash-calls-iocs-commends-nnpc/>> Accessed 30 July 2018.

³¹ Low record prices impacted Algeria, Nigeria, and Angola significantly, whose budgets are largely funded by oil prices.

NNPC currently struggles with insurgencies in the Niger Delta Region, while Sonatrach and the Libyan National Oil Company are often bedeviled by Islamist insurgency by Al-Qaida and other extremist groups operating in the Maghreb.³²

Despite the weak performances of several African NOCs however, some of them have not hidden their desire to reinvent themselves in order to play dominant roles not only at home, but also abroad. For example, Sonangol plans to develop its capabilities into a competitive upstream operator with an international reach,³³ while Sonatrach is seeking to be among the top 5 NOCs in the world. To that end the firm is taking steps to address some of its challenges, while also seeking to boost the confidence of foreign partners amid fraud scandals which have largely dampened the enthusiasm of foreign investors.³⁴ In a similar vein, Nigeria, whose leaders have not hidden their desire to transform NNPC into the mould of Petrobras and Statoil, has not only put in place certain measures to reform NNPC internally, but also aims at passing into law the Petroleum Industry Governance Bill in a bid to reform not only its NOC, but its petroleum sector in general.

If these ambitions are to be achieved however, there would be need for African PPCs to introduce external and internal reforms in their NOCs, aimed at avoiding past pitfalls, and repositioning them for even greater effectiveness. Such reforms should be two-pronged. First, they would require some form of 'external' legislative realignment geared towards ensuring that these firms are competitive, transparent, and efficient. These external reforms should then be complimented by 'internal' measures put in place by the boards of these firms in a bid to cutting down costs, and ensuring efficient operations. Reforms will also require these NOCs to glean vital lessons from their globally recognised counterparts like Petrobras and Statoil, which can be applied within the context of the African continent. The following analysis will therefore suggest the external measures which should be introduced by African NOCs.

IV. On Improving The Performances Of African Nocs

A. Petroleum sector liberalization and NOC performance in Africa

Currently, every NOC in Africa 'enjoys' extensive state benefits and privileges. Because several of these firms are sole concessionaires, which operate as monopolies, they are naturally very influential.³⁵

The few other African PPCs like Nigeria and Ghana, which do not vest all their upstream licenses on their NOCs but on government ministries or agencies, still reserve extensive privileges for these firms.³⁶ For example, as much as 90 percent of all petroleum produced in Nigeria has the imprint of NNPC, through its joint venture and production sharing contract collaborations, alternative financing arrangements, or via its sole operations.³⁷ While vesting special rights and privileges on NOCs is not without its merits, its major drawback is that it makes these firms uncompetitive and removes the motivation to manage their resources prudently and efficiently.

In order to address that limitation, it is suggested that African PPCs should expose their NOCs to some form of competition as a direct strategy of motivating them to operate with a stronger commercial orientation. It is also suggested that these firms be made to concentrate on their upstream and downstream operational roles, while divesting from non-core petroleum operations.

³² Since the overthrow of Muammar Gadhafi, Libya's absolute dictator in 2011, the country has not known peace. Insurgency has also affected its petroleum sector as well as the country's NOC. For example in 2018, militants stormed the premises of the NOC, killing 4 people and disrupting the firm's operations. See H Saleh and D Sheppard, 'Gunmen Storm HQ of Libya's National Oil Company' *Financial Times* (10th September 2018), O. Onwueanyi 'NNPC Records Massive Reduction in Pipeline Vandalism' *Sweetcrude* (17 February 2017) Available at <<http://sweetcrudereports.com/2017/02/17/nnpc-records-massive-reduction-in-pipeline-vandalism/>> accessed 11 October 2017.

³³ See R Akinkugbe, 'Sub-Saharan Africa's National Oil Companies have Big Ambitions but Funding Remains a Challenge' (2015) FBN Capital, <https://www.euromoney.com/article/b12klz6kdkl1z3/sub-saharan-africas-national-oil-companies-have-big-ambitions-but-funding-remains-a-challenge>, accessed 24 August 2018.

³⁴ Chikhi, supra note 25.

³⁵ Countries which make their NOCs sole concessionaires include Algeria, Equatorial Guinea, Egypt, and until recently, Angola.

³⁶ They include Nigeria and Ghana, and only recently, Angola.

³⁷ Several other benefits and privileges that are reserved for NOCs include state support in the event of bankruptcy, access to government information, as well as protection of their assets from the litigation process.

This will reduce their operational distractions, while also making these firms more amenable to regulation and external oversight. This would require the total or partial liberalisation of the petroleum sectors in Africa, and the amendment or repeal of laws which reserve special rights on African NOCs. In essence, the policy of conferring automatic entitlements on a rights' basis to these firms, should be jettisoned, in favour of one which encourages them to compete with other firms.³⁸ In this respect the experiences of some other non-African PPCs, may well be instructive.

Norway, Western Europe's foremost PPC, became a member of the European Economic Area (EEA) in 1994. One of the preconditions for EEA membership was the total liberalisation of its petroleum sector, as far as EEA member firms were concerned. In effect this meant an end to all exclusive benefits and privileges which Statoil, and other Norwegian firms had enjoyed pre-1994.³⁹ The effect was that Statoil was now 'forced' to compete for concessions which it had enjoyed as a matter of right. The firm was thus compelled to translate from a 'traditional' NOC, into a hybrid NOC: one that is state owned, but operates more or less like a private firm. Like Norway, Brazil which liberalised its petroleum sector in 1997, ended the monopoly years of Petrobras, and thus exposed it to competition from other POCs.⁴⁰ One of the far-reaching consequences of the petroleum sector liberalisation of Norway and Brazil is that their NOCs have evolved into globally recognised petroleum firms with international operations across the globe.

The question however is whether African NOCs are truly ripe for petroleum sector liberalisation. Put in another way, it is a fact that Statoil and Petrobras had already developed their operational capabilities pre-liberalisation in Norway and Brazil to significant levels, and were thus prepared to tackle new challenges in a competitive environment, with minimal state support. This is in contrast with quite a number of African NOCs, which have had minimal upstream operational input at home, and may be thus unprepared to compete with POCs, in a liberalised setting. Should African NOCs be fully ready to compete with other POCs before their owners should introduce liberalisation, or have they have enough time already?⁴¹

In view of the operational limitations likely to confront them if they are exposed to unrestrained competition, it is suggested that African PPCs should begin by initiating the liberalisation of certain sub-sectors of their petroleum sectors with a view to attaining full liberalisation in the near future. In this regard, lessons can be gleaned from Nigeria and Egypt.

Nigeria has introduced petroleum sector liberalisation in phases. Currently, its gas sector is partially liberalised, with NNPC operating side by side with other local and international firms. What this means is that although the Nigerian state is directly involved in gas production through the NLNG Ltd, the firm is made to operate with a commercial and competitive orientation, mainly because it is partly state owned, and partly owned by a combination of Shell, Total and Agip. Again, with respect to the refining sub-sector, Nigeria has introduced some liberalisation despite being directly involved through NNPC's refineries. As far back as 2007, Nigeria began awarding licenses for the building of private refineries and in so doing, ended NNPC's monopoly over the sub-sector.⁴² Although there were initial delays in kick-starting their operations, private refineries, appear set to play

³⁸ In this regard, Nigeria is slightly different from Angola. This is because the Petroleum Act does not mandate the Minister to allocate licenses to NNPC, nor is the firm sole-concessionaire. This explains why some firms Monipulo, Conoilete, currently operate sole risk operations in Nigeria without any collaboration with NNPC. That said, their contribution to overall daily production is less than 8 per. See NNPC Report for January 2018'

<<http://nnpcgroup.com/Portals/0/Monthly%20Financial%20and%20Operations%20Data/Full%20Reports/NNPC%20Monthly%20Financial%20%20Operations%20Report%20for%20the%20Month%20of%20January%202018.pdf>> Accessed 16 May 2018.

³⁹ In the 1970s, the Norwegian government had given Statoil a minimum participatory right of 50 percent of all concessions awarded in the NCS, with an option to increase to 80 percent. These privileges were harnessed by the firm in developing its upstream capabilities over time. By the 1980s, it launched out as sole operator in some fields in some petroleum North Sea. See T Tonne, 'Energy Policy: A Norwegian Perspective' (1983) 5(4) *Northwestern Journal of International Law & Business*, 738.

⁴⁰ See WB Blades, "Production, Politics, And Pre-Salt: Transitioning to a PSC regime in Brazil" (2011) 7 *Tex. J. Oil Gas & Energy*, 33. Brazil's attempt to 'back out' from this approach backfired. See P Subai, 'Petroleum Sector Liberalisation and direct state participation: lessons from Brazil' (2018) 1 *African Nazarene University Law Journal*.

⁴¹ Petrobras operated as exclusive monopoly for over 40 years while Statoil enjoyed state privileges as it developed its expertise in the periods between 1972 and 1994. See P Subai, 'Would Petroleum Sector Liberalisation improve the performance of African NOCS?' (2018) 3 *International Energy Law Review*, 88.

⁴² See 'Nigeria approves license to build first private refinery'. (2007). *Platt's Oilgram Price Report*, 85(133), 13.

dominant roles in Nigeria's refining sub-sector.⁴³ Lastly, Nigeria has also partly liberalised its upstream sub-sector, with NNPC sometimes required to compete with up and coming indigenous operators. That said, there is still more to be done, given the fact that NNPC, which benefits from routine award of upstream licenses, is not duly motivated to operate efficiently and effectively.

Like Nigeria, some other African countries have also attempted to introduce some form of sectoral liberalisation, although few of them have impacted directly on their NOCs. For example, in 2017, Egypt enacted the Gas Law No. 196 of 2017, and in addition, issued executive regulations through Decree No. 239 of 2018. This reform however stopped short at the liberalisation of the country's downstream gas sector only in a bid to end the monopoly of the government, attract investors, and usher in an era of competitiveness, but does not extend to the country's upstream sub-sector.⁴⁴ Similarly, Algeria, whose petroleum sector has seen a decline in exploration projects, plans to introduce a new hydrocarbons law in order to attract investment. But again, while the amendments are expected to revise royalties and taxes, streamline contracting processes in order to reduce bureaucracy and address delays, it appears not to have any direct bearing on Sonatrach, the country's NOC.⁴⁵ Since the 2000s, Ghana also liberalised and deregulated the downstream aspects of its petroleum sector,⁴⁶ but these are not extensive enough. What is required is for African PPCs to adopt petroleum sector liberalisation strategies at the upstream and downstream as a means of exposing their NOCs to competition.

Petroleum sector liberalisation will however require continuity and commitment in government policy if it is to translate to efficiently run NOCs in the continent. This will be borne out of a firm appreciation of the nexus of liberalisation and NOC performance. It is often the case that PPCs tend to be inclined to liberal sectoral reforms when the prices of petroleum products are low, but turn on their heels towards resource nationalism, when there is an upward swing. This back and forth which is often a product of the desire to optimise petroleum revenues, may also be attributed to an improper appreciation of the underlying benefits of sector liberalisation in general, and with respect to the performance of NOCs, in particular. For the most part, some PPCs display a reluctance to totally commit to petroleum sector liberalisation, and are thus willing to yield to the 'temptation' to reserve some rights and privileges for their NOCs.

Countries like Algeria, and Brazil, have had to go back and forth the liberalisation of their petroleum sectors.⁴⁷ Policy somersaults not only make PPCs unattractive to foreign investors, they also tend to negate the effect of whatever gains may have been made by those reforms.

B. Is partial privatisation a viable option for African NOCs?

Some of the most viable NOCs in the world, like Statoil, Petrobras, Rosneft, and Gazprom, are partially privatised.⁴⁸ Partial privatisation of NOCs, if properly harnessed, can translate into greater autonomy of these firms from their governments, while also enabling to operate with greater prudence, transparency, and

⁴³ For example, the Dangote refinery set to flood the markets with 650,000 barrels per day See E Giokos and L Whiteside, 'Can this massive refinery solve Nigeria's energy crisis?' *CNNMoney*(6th June 2016)

<https://money.cnn.com/2016/06/06/news/economy/nigeria-dangote-energy-oil-refinery/index.html>, accessed 24 January 2019.

⁴⁴ M. Elshazly and S Khodeir, 'Legislative reforms in the Egyptian energy sector to liberalize the natural gas market' *Journal of World Energy Law and Business*, 2018, 11, 354–359

⁴⁵ See R Loucif, 'Algeria Resets Path to Oil and Gas Revenue' (2018) *Oil and Gas Journal*

<https://www.ogj.com/articles/print/volume-116/issue-2/exploration-development/algeria-resets-path-to-oil-and-gas-revenue.html>, accessed 30 January 2019

⁴⁶ M. Skaten, 'Ghana's Oil Industry: Steady Growth in a Challenging Environment' (2018) *The Oxford Institute for Energy Studies*.

<https://www.oxfordenergy.org/wpcms/wp-content/uploads/2018/04/Ghanas-Oil-Industry-Steady-growth-in-a-challenging-environment-WPM-77.pdf>, accessed 20 October 2018

⁴⁷ For an insightful treatment of the consequences of policy somersaults and its impact on NOC performance, see P Subai, 'Petroleum Sector Liberalisation and direct state participation: lessons from Brazil' (2018) 1 *African Nazarene University Law Journal*, 92.

⁴⁸ Interestingly, even Saudi Aramco, the world's largest NOC, is being considered for privatisation, because of the desire of the Saudi Ruling house to harness the benefits that attend the strategy; See J Seznec, 'Saudi Arabia's Sell-off of Aramco: Risk or Opportunity?' (2016) 72(6), 378

efficiency.⁴⁹ Privatisation also enables NOCs access funds from local and international markets, besides guaranteeing a steady stream of technology. In spite of the touted benefits of partial privatisation, it would seem that, perhaps with the exception of Nigeria, the privatisation strategy is not seriously being considered by PPCs in Africa.⁵⁰ The strategy is conspicuously absent from the reforms introduced by Egypt, Algeria, and by Angola.⁵¹

In Angola for example, since taking over office in 2018, President Lourenco Joao initiated a series of reforms aimed at transforming Angola's petroleum sector, some of which have also had a direct bearing on Sonangol. These reforms which include the setting up of a new regulatory gas framework, provision of incentives for the development of country's marginal oil fields, and improvement of exploration terms, were initiated in a bid to attract foreign investment, strengthen Angola's petroleum sector, and promote economic diversification. Among other things, the Angolan state created a separate agency by virtue of Decree 15/19 of 2019, which will be responsible for awarding oil concessions. While this effectively ends Sonangol's role as sole concessionaire of Angola's upstream resources, the firm continues to be 100 percent state owned.⁵²

This reluctance among African PPCs to privatise their NOCs, may be borne out of a continued desire by the rulers of these countries to exert maximal control over the operations of these firms. Several considerations may have informed the unwillingness of African PPCs to toe the path of privatization, such as the fact that the public may not be able to acquire them due to their high value, the strategic nature of these firms, their legacy values, etc. It may also be argued that privatisation is not necessarily a pre-requisite to NOC functionality in view of the fact that Aramco of Saudi Arabia, Petronas of Malaysia, Petrobras, and Statoil, all attained international recognition for their efficiency while fully state owned.⁵³

Nevertheless, if African PPCs truly desire to build vibrant NOCs which would operate efficiently and autonomously, and address issues such as corruption, lack of transparency, improved accountability, and efficiency, they should seriously consider partial privatisation in a manner similar to that of Petrobras and Statoil. In effect, the governments of Brazil and Norway, both retain significant stakes in these firms, but have privatised their minority stakes in order to attract funds from local and international markets. In the case of African NOCs, it is suggested that the partial privatisation option could represent a win win situation for all. First it would not necessarily amount to ceding total control of such critical assets to private ownership completely, but would nonetheless, enable them operate with greater autonomy and a stronger commercial orientation. It is thus proposed that the partial privatisation similar strategy be adopted in African NOCs.

The writers are not unaware however, of the fact that privatisation also has its drawbacks. For example, apart from the massive job cuts which may follow initially, the privatisation process itself, if not conducted properly and transparently, may result in the sale of state-owned enterprises for pittance to firms which may lack the requisite commitment, or financial and technical capacity. Instances of failed privatisations are rife all over the world.

⁴⁹ For more on arguments for and against privatisation, see generally: W L. Megginson and J M. Netter 'From State to Market: A Survey of Empirical Studies on Privatisation' (2001) 39 *Journal of Economic Literature*, 321.

⁵⁰ Nigeria has for some now, touted privatisation as the route for revamping NNPC and improving its performance. The PIB 2012 had proposed splitting the firm into a National Oil Company, an asset management firm, and a gas firm. While the PIGB 2015 is however silent on whether Nigeria intends to continue with that option. Angola on the other hand, which had seriously considered privatisation, now appears set to privatise about 54 subsidiaries of the firm. JG Marques, 'Death of Sonangol' *Business Year* (13th September 2018) <https://www.thebusinessyear.com>, accessed 19 November 2018

⁵¹ For example, since taking over office in 2018, President Lourenco Joao has initiated a series of reforms aimed at transforming Angola's petroleum sector, some of which also touch on Sonangol. The reforms which include a new regulatory gas framework, incentives for the development of that country's marginal oil fields, and improved exploration terms, were initiated in a bid to attract foreign investment, strengthen the petroleum sector of the country, and promote economic diversification. While it did not directly hinge on privatising Sonangol however, it went a step forward by creating a separate agency which under Decree 15/19 of 2019, will be responsible for awarding oil concessions. See also 'Deep Petroleum Industry Reforms Set Angola on Path to Growth in 2019' *Worldoil* (21st December 2018), <https://www.worldoil.com/news/2018/12/21/deep-petroleum-industry-reforms-set-angola-on-path-to-growth-in-2019>, accessed 30 January 2019.

⁵² See 'Deep Petroleum Industry Reforms Set Angola on Path to Growth in 2019' *Worldoil* (21st December 2018), <https://www.worldoil.com/news/2018/12/21/deep-petroleum-industry-reforms-set-angola-on-path-to-growth-in-2019>, accessed 30 January 2019.

⁵³ As noted earlier, Petrobras and Statoil were later privatised, partially.

Nigeria and Tanzania have had to roll back some of their privatization programmes when it became evident that the new managers of some privatised firms in these countries were unable to improve their performances, nor did they have the capacity or requisite experience.⁵⁴ The premise that privatisation results in reduced levels of corruption, has also been questioned by some studies which actually assert otherwise.⁵⁵ In effect, privatisation does not automatically translate into developing successful and efficient firms. As such, the success of a privatised firm may be largely dependent on whether the privatisation process itself was conducted transparently, and in compliance with due process.

It is also pertinent to ensure that such NOCs are strategically privatised to address the core issues they face in the continent, such as corruption, undue state interference, and lack of innovation. And this is where NOC privatisation and petroleum sector liberalisation go hand in hand. In effect, if a privatised NOC continues to operate in a non-liberalised sector, it may be unduly exposed to state control and privileges, which would affect not only its autonomy, but also its ability to innovate and operate competitively. Exposure to state control would also expose such firms to undue external interference, corruption, and nepotism, which may eventually nullify the effects of the whole exercise. In this regard, lessons can be drawn from the Petrobras experience.

Petrobras was partially privatised in 2000, with the Brazilian government retaining about 40 percent of its shares, and over 50 percent of its voting rights.⁵⁶ In a sudden twist of fate however, in 2007, Brazil discovered vast reserves of crude oil lying in its Tupi, Jupiter, and Libra oil fields located at the Santos Basin 300 kilometers south east of Santos, Brazil. These resources were trapped in an ultra-deep pre-salt layer, and estimated to hold an estimated 50 billion barrels of crude oil.⁵⁷ Desirous of optimising state benefits from these reserves, Brazil enacted Law 12.276/2010, which made Petrobras a quasi-monopoly over all pre-salt concessions. The government executed PSCs with POCs in a unique arrangement under which Petrobras was made compulsory sole operator and holder of a minimum of 30 percent of all such PSCs.⁵⁸

Petrobras was required to pay the sum of \$43bn worth in shares to the Brazilian government in exchange for its pre-salt privileges. This further increased the stake of the Brazilian government in the firm to over 60 per cent. Increased government stake and unique privileges however exposed Petrobras to monumental corruption which has since weakened its performance, and damaged its reputation significantly.

Between 2014 and 2016, the firm became enmeshed in corruption scandals which arose out of collusion schemes between its executives, some politicians, and some construction firms. The schemes resulted in the fraudulent overbilling of Petrobras for construction jobs executed on its behalf. Beginning from 2004 to 2012 it resulted in the payment of 3 percent of each major construction contract awarded by the firm, as kickbacks, to Petrobras' politically appointed executives, and some executives of Brazil's ruling Workers' Party. The result was a loss of \$7 billion to the firm, and perhaps far more in loss of reputation.⁵⁹ The outcome of the corruption scandal, coupled with persistent low oil prices in 2015, resulted in a 70 percent decline of the value of Petrobras' shares.⁶⁰

⁵⁴ See C Clover, 'TNK-BP: rolling back Russian Privatisation?' *Financial Times* (24th October 2012) <https://www.ft.com/content/70ebcc30-5786-3fe1-82ed-8531147726c4?mhq5j=e7>, accessed 11 October 2017. For example Nigeria's privatisation of its steel corporation, the Ajaokuta Steel Company to Indian owned Global Infrastructure Holdings Limited (GIHL) was later cancelled on allegations that the whole process leading up to the privatisation lacked due process while the new managers were said to have lacked the requisite expertise and financial capacity to manage the firm.

⁵⁵ See G.G Arikan, 'How Privatisation s Affect the Level of Perceived Corruption?' (2008) 36 *Public Finance Review*, 706. For a rebuttal of simplistic neoliberal conceptualization of post-communist corruption.

⁵⁶ 'Over a Barrel' *The Economist* (2nd September 2010) <http://www.economist.com/node/16945222>, accessed 5 September 2017.

⁵⁷ See WB Blades, 'Production, Politics, And Pre-Salt, supra note 38, 33

⁵⁸ Law 13.351/2010, Petrobras' Production Sharing Contract Act. This Act was however amended in 2017 in order to allow other POCs operate concessions in the pre-salt, although Petrobras is still given the right of first refusal.

⁵⁹ 'Petrobras Counts Cost of Corruption Scandal as 2014 Losses Exceed \$7bn' *The Guardian* (2015) <http://www.theguardian.com/business/2015/apr/23/petrobras-counts-cost-of-corruption-scandal-as-2014-losses-exceed-7bn-dollars>, Associated Press 23 April 2015.

⁶⁰ C Eaton, 'Petrobras CEO Steers Brazilian Giant out of Crisis' *Houston Chronicle* (2nd May 2017) <http://www.houstonchronicle.com/business/article/Petrobras-CEO-steers-Brazilian-giant-out-of-crisis-11116735.php?cmid=premartcl>, accessed 8 August 2017, see also M Noguera, 'Brazil clears Petrobras, Advisors of wrongdoing in 2010 offer' *Reuters* (11th July 2017) <https://www.reuters.com/article/us-petrobras-offering-ruling-idUSKBN19W2KB>, accessed 18 August 2017

The Petrobras experience is indicative of the abuses that may result when the lines which should separate a partially privatised NOC from the political class, become blurred.⁶¹ It is thus suggested that if African PPCs elect to partially privatise their NOCs, they should do so strategically and intentionally. First, they should require these firms to operate in completely or partly liberalized sectors, as a direct strategy of restraining undue government intervention in the running and management of such firms. Secondly, African PPCs should opt for less than 50 percent of the shares of these firms, while a combination of private investors may own the remaining 51 per cent. Thirdly, such privatised firms should be subjected to strong regulatory oversight. Implementing these suggestions will require deliberate efforts to be made to develop strong regulatory institutions in African PPCs, which would be able to exert extensive influence over not only private firms, but on NOCs as well.

In addition, the measures proposed above, it is imperative for the managers of African NOCs to constantly introduce and adhere to internal measures aimed at boosting firm efficiency, entrench transparency, and promote accountability. In effect, the suggestions made in the preceding parts of this article will require commitment on the part of the managers and employees of African NOCs, to integrity and ethical practices, in addition to adopting cost reduction measures and promoting good governance practices. Again, lessons may be gleaned from the experiences of Petrobras in recent years.

C. Internal reforms and NOC performance: lessons from Petrobras

Brought to the brink of bankruptcy by virtue of its daunting indebtedness, amidst a massive financial scandal, Petrobras' leadership employed multifaceted strategies in a bid to revamp its reputation, and turn around its fortunes. First the firm appointed Pedro Parente, a former member of the Petrobras' board which oversaw its privatisation and listing between 1999 and 2003, as its chief executive officer (June 2016-June 2018). The Parente board formulated a 2017–2021 Business and Management Strategic plan, which consists of a five-pronged strategy.³⁷ While the first strategy reiterates the firm's commitment to life, the remaining four are targeted at reducing the firm's enormous debt profile, and improving its overall performance. Among other things, Petrobras adopted a new petroleum pricing policy based on international parity in 2017, as well as an investment efficiency policy targeted at reducing the firm's investments, without necessarily compromising its production output.⁶² It also adopted a divestment strategy geared towards raising cash and optimising capex, has seen Petrobras sell or propose to sell some of its overseas investments as well as some of its non-core petroleum operations in a bid to generate a total of \$21 in the 2017/2018 biennium.⁶³ In 2016 for example, the firm sold off its 67.19 percent stake in Petrobras Argentina (PESA) to Pampa Energía.

This move, effectively ended Petrobras' integrated operations in that country.⁶⁴ At the same time it divested from two of its most prolific African upstream assets in Nigeria.⁶⁵ Petrobras has also mulled divesting from its fuel distribution subsidiary BR Distribuidora, as well as some of its onshore, shallow offshore assets.⁶⁶

⁶¹ Ibid

⁶² Petrobras, 'Report of the Administration' (2016) <http://www.investidorpetrobras.com.br/en/annual-reports/report-administration>, accessed 9 August 2017. In 2018, the Brazilian government succumbed to a national wide strike by reintroducing some form of subsidies through Petrobras. Even though the government promised to reimburse the firm for losses it would incur, it raised concerns whether it would not hamper the firm's fortunes on the international capital market and lead to more external interference in its operations. See m Ayres and A Alper, 'Petrobras Shares Plunge as Brazil Offers Subsidies to end Truckers' Strike' *Reuters* (28th May 2018) <https://www.theglobeandmail.com/businessinternational>, accessed 20 September 2018

⁶³ Petrobras, 'Report of the Administration' (2016) <http://www.investidorpetrobras.com.br/en/annual-reports/report-administration>, accessed 9 August 2017.

⁶⁴ Although it continues to maintain some participation in the Neuquina Basin, in the Active Río Neuquén asset, see A Boadle, 'Petrobras Argentina sale under scrutiny in Brazil' <https://www.reuters.com/article/us-brazil-corruption-petrobrasargentina/petrobras-argentina-sale-under-scrutiny-in-brazil-idUSKCN1AW1M>, accessed 17 August 2017.

⁶⁵ P Whitaker 'Brazil's Petrobras Nears \$1.2 Billion sales of African Venture Stake: Paper' *Reuters* (10th July 2018) <https://www.reuters.com>, accessed 19 November 2018

⁶⁶ See P Brock, 'Petrobras Raises R\$5bn in IPO of Distribuidora' *Valor* (13th December 2017) <https://www.valor.com.br/node/5226983>, accessed 24 January 2019; See also B Federowski, 'UPDATE 1-Petrobras eyes five major assets in new divestment program' *Reuters* (31 March 2017) <http://www.reuters.com/article/petrobrasdivestiture-idUSL2N1H80HK>, accessed 17 August 2017.

In addition to all these, Petrobras intends to exit from its biofuels businesses by selling its ethanol and biodiesel production assets.⁶⁷ The strategies employed by Petrobras have also seen it apply cost reduction measures, without necessarily compromising its safety and production goals. And in order to address its human and capital limitations as well as to mitigate its risk exposure, the firm has formed local and international partnerships. For example, in 2017, Petrobras and French giant Total, signed a strategic partnership agreement which will see both firms collaborate in Brazil and abroad in key areas of mutual interest by leveraging on their experiences and capabilities. The aim of the partnership is to optimise production in Brazil and abroad, by sharing technology, risks and costs in highly complex projects which require huge investments.⁶⁸ In addition to all these, Petrobras has also increased its productivity at home. For instance in August 2017, the firm set a new domestic record of 2.69 million crude bpd while output in gas for the same month was 77.2 million cubic/meters per day.⁶⁹

It is suggested that African NOCs should aim at increasing their profitability and reducing their indebtedness by adopting measures aimed at avoiding waste, reduce corruption, while also reducing their socially inclined operations. These firms should be ready to downsize where necessary. Furthermore, African PPCs may need to commit to and effectively scrape fuel subsidies in favour of pricing formulas which reflect international price fluctuations.⁷⁰ Ending subsidies once and for all will also free up cash for African NOCs which may be used to develop other critically important projects.⁷¹ This is in view of the fact that in some cases, subsidies only end up enriching a few elites who overcharge their governments for petroleum imported, or not imported, or siphon subsidized petroleum to neighbouring states.⁷² It is also proposed that African NOCs should introduce measures aimed at reducing their indebtedness, improving transparency, and their overall performances.

For example, some of them may have to renegotiate their terms of engagement with POCs as a direct strategy of addressing their indebtedness. For example, both Sonangol and NNPC have been bogged down by cash-call obligations in their joint venture operations with international POCs. In order to address its funding challenge for example, NNPC decided to exit its cash call JV regime, in preference for an alternative less burdensome funding mechanism.⁷³ Similarly, Sonangol has taken some steps to address its indebtedness to its POC partners, notably Chevron, and its contractors. It cancelled non-priority contracts, negotiated others and rationalised expenses and

⁶⁷ See Petrobras, '2040 Strategic Plan and 2019-2023 Business and Management Plan' www.petrobras.com.br, accessed 24 January 2019. See also J Blount and G Parra-Bernal, 'Petrobras cuts spending, raises asset sales goal in five-year plan' *Reuters* (20 September 2016) <http://www.reuters.com/article/us-petrobras-investments-idUSKCN11Q2C1>, accessed 24 August 2017.

⁶⁸ See Petrobras, 'We have formed a strategic alliance with Total in Exploration & Production and Gas & Power' (2016) <http://www.petrobras.com.br/en/news/we-have-formed-a-strategic-alliance-with-total-in-exploration-production-and-gas-power.htm>, accessed 18 August 2017.

⁶⁹ Petrobras, 'Oil and Natural Gas Output Increases and Sets Record' (2017) <http://www.petrobras.com/en/magazine/post/oil-and-natural-gas-output-increasesand-sets-record.htm>, accessed 23 August 2017.

⁷⁰ Angola ended fuel subsidies in 2015. 'Angola Petrol Price Rises 28 percent after Subsidy Ends' *Reuters* (14th May 2015) <https://af.reuters.com/article/investingNews/idAFKBN0NZ0KX20150514>, accessed 12 October 2017

⁷¹ It is noteworthy however, that some African PPCs like Egypt, Ghana, Cameroun, and Sudan, have all taken steps to end subsidies. For example Angola announced an end to fuel subsidies in 2015, while Nigeria also announced that it was ending fuel subsidies in 2016. Many however doubt whether Nigeria has in fact ended fuel subsidies, as the Nigerian government continues to cap the price of the product at 145 naira, while oil importers have continued to claim subsidy payments from the government. Like Nigeria and Angola, several other African countries have ended, or are planning to end fuel subsidies in order to attract private investors into their downstream sectors, address perennial fuel scarcity problems, and end fraud and abuse to which subsidies are often associated with. See Subsidy removal will sustain supply; reduce suffering – Kachikwu' *Vanguard* (16th May 2016) Available at <<https://www.vanguardngr.com/2016/05/subsidy-removal-will-sustain-supply-reduce-suffering-kachikwu/>> Accessed 11 October 2017. Some Nigerians however question whether subsidies are indeed ended in the country. See U Akpan et al, 'Fuel Subsidy Returns, as NNPC records N50bn shortage' *Vanguard* (4th June 2017) Available at <<https://www.vanguardngr.com/2017/06/fuel-subsidy-returns-nnpc-records-n50bn-shortage/>> accessed 11

⁷² See AEzeoha et al, 'Relevance Lost? The Petroleum Equalisation Fund in Nigeria' (2016) 31 *Energy for Sustainable Development*, pp.152-162.

⁷³ Since 2017, the FGN transited to an alternative funding mechanism for its JVs. Under this arrangement, which had already been used between NNPC and Chevron Nigeria Ltd, the JV business would finance itself by retaining its operating costs and capital allowances for the sustenance of the business. It would also be able to source for its own funding, and by so doing, will relieve the government of the burden of meeting its yearly cash calls. See R Okere, 'NNPC Sets January 1 Deadline to End \$9 Billion JV Funding' *Guardian* (16th November 2016) Available at <<https://guardian.ng/energy/nnpc-sets-january-1-deadline-to-end-9-billion-jv-funding/>> Accessed 6 March 2017.

superfluous consumption. It also revised prices, reviewed trade policies, reinforced revenue assurance actions, and introduced revaluation measures with a focus on sustainability and value creation in order to improve Sonangol's efficiency and effectiveness.⁷⁴ Similar measures should be adopted and followed through by other African NOCs, with vigour and with transparency.

Lastly, African NOCs should seek to improve their transparency and openness. Several African PPCs are currently members of the Extractive Industries Transparency Initiative, and have made commitments to transparency. And even some that are not, are mulling joining the transparency organization.⁷⁵ There is need for these firms to commit to auditing their accounts year on year, and to make available the results of such auditing to the public. For example, NNPC which for years did not audit its accounts, has committed to doing same yearly.⁷⁶ Sonangol, has also promised to entrench transparency in its payments, but it remains to be seen if this can be done.⁷⁷ Tunisia also introduced recent reforms aimed at improving transparency in its petroleum sector.⁷⁸ In order to demonstrate commitment to transparency and accountability, African NOCs should formulate whistle-blowing policies which would provide reporting mechanisms, and offer adequate protection, rewards, and compensation for whistle-blowers.

If internal reforms are to take root and bear fruit, it is equally imperative that the management team of African NOCs be committed to integrity and good corporate governance practices. This commitment is required to justify their continued stay in office and for the maintenance of boardroom stability. In addition, the employees of these firms should maintain the highest standards of ethics and integrity. Admitted, the temptation to double deal and self-serve is strong for managers and employees of NOCs, given the vast amount of funds with which they deal. That said, it is important for the managers of these firms to appreciate the fact that they manage assets on which the aspirations of their countries are founded. This appreciation will perhaps imbue in every one of them the sacred nature of the task they are called upon to discharge. In the end, the success or failure of an NOC may not necessarily depend on its structure, style or the laws behind its operations, but on the efficiency and commitment of the 'boots on ground', the very persons who are called to drive its vision and goals. In fact, whatever gains may be conferred on NOCs by virtue of external reforms such as sector liberalisation, or privatization, will only be sustained if their managers and employees co-operate with the overall visions and strategies of their home states, and commit to operating under the highest standards of efficiency, integrity and professionalism.

V. Concluding remarks and suggestions

This article has sought to examine how to improve the performances of NOCs in Africa. It observed that NOCs play very crucial and important roles in many PPCs. From local content development, to the advancement of technology innovations generation of revenues and the provision of employment, these firms often stand at the intersection between state governments and private oil companies. The article however noted that while the NOCs of Brazil Malaysia and Norway have developed their capabilities into a level that is comparable to the best IOCs, majority of NOCs in Africa grapple with corruption, nepotism, funding, lack of autonomy, and weak operational performance.

⁷⁴ For example, a proposed refinery at Lobito and an oil terminal at Barra da Dande, were put on hold pending a more comprehensive financial review, see Sonangol, 'Management Report and Consolidated Accounts 2016' at <http://eiti.org/files/EITI%20Impact%20in%20Africa.pdf>, accessed 9 August 2017

⁷⁵ EITI members in Africa include Ghana, Cameroun, Nigeria, Liberia, Gabon, Tanzania etc. See also Impact of EITI in Africa: stories from the ground' (2010) a publication of EITI, https://www.acode-u.org/Files/Publications/infosheet_12.pdf, accessed 30 January 2019; see also LC Mouan, 'Can EITI Make a Difference in Angola?' (29th February 2016) Publish What You Pay, Available at <<http://www.publishwhatyoupay.org/can-eiti-make-a-difference-in-angola/>> Accessed 8 October 2017.

⁷⁶ NNPC, 'Transparency: Auditor General Thumbs up NNPC for Audited Accounts' (2017) <http://nnpcgroup.com/PublicRelations/NNPCinthenews/tabid/92/articleType/ArticleView/articleId/826/Transparency-Auditor-General-Thumbs-up-NNPC-for-Audited-Accounts.aspx>, accessed 11 October 2017

⁷⁷ E Cropley, *supra* note 9.

⁷⁸ See N. Abou Khaled and M Hassen, Governance of Tunisia's State-Owned Oil Company: Concrete Steps for Progress', (2016) Natural Resource Governance Institute, <https://resourcegovernance.org/governance-of-tunisia-state-owned-oil-company-concrete-steps-for-progress>, accessed 21 September 2018.

It went on to argue that if Africa PPCs are going to realise their industrialization objectives, and if they are going to succeed in the management of their petroleum sectors, it may be imperative for them to start NOCs. Thus it argued that in order to develop viable NOCs, African PPCs aim at whittling down the powers of these firms, first by exposing them to competition by complete or partial liberalisation, improving their performance through partial privatisation, promoting accountability and transparency, and strengthening regulatory oversight.

The suggestions proffered in this article are made in view of the fact that the dominance of petroleum as the main source of energy is being challenged by other cleaner sources of renewable energy. If the current momentum is sustained, the global energy industry as we know it, may be altered forever in no distant time. Cognizant of these developments, it is imperative that African PPCs be positioned, first to improve their efficiency, and secondly to align them to take advantage of future developments. As countries across the continent seek to diversify from petroleum and fossil fuels, it may be imperative for them to develop and pursue these objectives on the back of strong and competent NOCs. These firms can bring their expertise to bear in areas such as construction, manufacturing, shipbuilding, and power. Reform is also imperative in view of the fact that for a number of African PPCs, time may be running out. These countries may have only few years left to properly harness their petroleum revenues, while petroleum still retains its relevance.

Optimal NOC performance in Africa is therefore not an option for African PPCs. And in this regard, NOCs like Sonatrach, Sonangol, and NNPC, can lead the way. First because of their vast experiences, and secondly because of the abundant reserves in their home states. It is therefore important that the drivers of the petroleum sectors of African PPCs, recognize the crucial issues at stake, and adopt measures to address them urgently.

Thankfully reforms are being introduced in Angola, Algeria, and they are likely to be introduced in Nigeria with the passage of the PIGB. That said, it is still imperative to note that a one stop shop approach or model to improving NOC performance in Africa, may not exist. Rather what may be required is an appreciation of the core issues involved by each PPC, which would then decide on the approach that best fits its current needs. Again, African PPCs should be ready, where necessary, to quickly make adjustments in order to cater for future changes and developments in the sector. For example, while Brazil and Norway privatised their NOCs, Malaysia continued to retain full ownership of its NOC. Again, while some PPCs like Norway and the UK have fully liberalised their petroleum sectors, others appear to have done well, despite retaining certain privileges for their NOCs.

In the end, it is hoped that the current reforms proposed that African PPCs would not only introduce reforms with the aim of attracting investors, but would carry same through to the NOCs. In effect, half-hearted measures aimed at addressing current challenges may not be enough. What is required is a sustainable and holistic long-term approach not only to petroleum sector reform as a means of attracting investors, but reforms that would extend to NOCs on the continent as well. It remains to be seen whether some of the reforms introduced in some African PPCs would be sustained. Rising petroleum prices since 2017 have already shored up the finances of a number of African NOCs. Cries for reform, are not as loud as they were in the periods between 2014 and 2016. It is hoped notwithstanding, that African leaders would continue with extensive petroleum sector reforms, which would eventually expose their NOCs to competition in order to shore up their performances, curb waste, and develop their capabilities. For in truth, the world at large may only begin to pay attention to African PPCs if they are able to build and develop viable and competitive NOCs.