COMPETITION/MARKET REGULATIONS: SECURITY OF SUPPLY ISSUES, AFFORDABILITY, SUBSIDIES, MARKET-INCENTIVES & INVESTMENT

By

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Abstract

The oil and gas sub-sector of the energy sector is critical to the country's development process. The oil and gas subsector has evolved from the modest beginning in 1959 when Nigeria made her first crude oil export, to a major factor influencing economic planning in the nation. There is a global economic integration increasing economic dependency by Nigeria arising from high demand of its oil. Nonetheless most developed countries are now embracing environment friendly source of energy. The fossils energy consumption pattern of the economy seems unsustainable. These issues are more complicated in developing countries like Nigeria, where there are under developing technological base, low energy access, uneven distribution of energy resources, conflict between achieving energy sector objectives and meeting the challenges of various national development plans of poverty alleviation, economic development, education, health and national security. The oil and gas market thus becomes the hub of activities and competition that can make or mar a nation's economic and indeed socio-political growth. It thus becomes imperative to articulate competition and market regulation aimed at promoting a level playing field, protecting consumer interest and encouraging innovation. This seminar paper examined current market competition and regulations and indeed, managerial issues in connection with energy security, sustainability, market incentives and development in the Nigeria energy reform process. The necessity to build requisite infrastructural framework capable of driving modern innovations in the energy sector, and appropriate competition regulatory model as to ensure sustainable fiscal responsibility for a viable process were examined. To achieve this objection, this paper adopted the doctrinal research methodology and utilized both primary and secondary data. This paper found that the oil and gas subsector is vital to the nation's economic wellbeing and has placed Nigeria in the global oil and gas market. It also revealed that there is a global market interdependency, hence competition and regulatory framework are essential for the oil and gas sector, in order to promote a level playing ground, protect consumer interest and encourage innovation and competition. This paper concluded that Nigeria, like other developing countries, is faced with an ongoing challenge in developing oil and gas reserves and indeed its marketing and energy sustainability, majorly due to its technological and managerial ineptitude. Thus to ensure a sustainable energy development, Nigeria has to embrace an option to continue to attract foreign investment for their upstream opportunity and midstream and downstream operation by providing a robust legal, fiscal and regulatory framework that is attractive to foreign investors and benefit the citizens of the country. To achieve this, this paper recommended that government should adopt a wide-ranging regulatory framework that will boost competitive, strengthen cross border co-operation between regulators, adopt an efficient and targeted enforcement rules concerning anti-trust, state aid and merger control. Consistent screening and removal of barrier to entry, general orientation of our moral values to erase selfish aggrandizement and corruption should be launched. Furthermore, it was recommended that Nigeria should draw veritable lessons from Thailand in terms of their oil and gas activities.

1.0 Introduction

Generally speaking, any legal regime in the Oil and Gas Industry which acknowledges and includes a competitive bidding, privatization and independent regulatory agencies, will surely promote and encourage

security of supply.[1] Competition rather than monopoly have now been generally considered as a strong move toward ensuring well-organized energy delivery including security of supply of petroleum product.[2] The role of government under a competitive and properly regulated energy market is to provide an enabling environment for the market players to strive and whenever it is necessary, to prevent market failure.[3] Competition implies the absence of direct government involvement in petroleum production activities, other than setting the rules for the stake holders.

Prior to the establishment of the Petroleum Industrial Act (P.I.A) 2021, the Petroleum Act (PA, 1969) and the Nigerian National Petroleum Corporation Act (NNPC Act, 2004), this paper argues that the Acts support neither a competitive environment in the petroleum industry nor an independent regulatory agency that could evolve privatization and deregulations process of the petroleum industry. This failure contributes to the unreliability of security of supply of petroleum product for domestic consumption. In addition, the role of the NNPC as a weak Joint Venture (JV) partner with the International Oil Companies (IOCs), negatively contributes to the lack of competitiveness in the Oil and Gas Industry. However, the PIA being the most audacious regulation and drastic step taking by the government, brought in a lot of impressive reforms in the Oil and Gas sector but nonetheless it has its own setbacks.

Security of supply is the main pillar of energy security and major concern of every society.[4] The implication is that, any threat to energy supply is equally a threat to security of supply of that source. A major challenge to security of Supply issues in Nigeria is the non-payment of cash calls by the national oil company (NOC) – Nigerian National Petroleum Corporation to the IOCs which will cover production cost and this contributes to the cessation or abandonment of exploratory activities by IOCs. The failure of the NOC to pay up cash calls, create a negative impact on security of supply.

Affordability simply means energy prices that are affordable to consumers, rewarding to investors, while addressing the impact of energy on the environment. It is not only concern with whether the prices of petroleum products are high or low. It reflects the full cost of supply. Affordability is an important determiner of energy security and security of supply in Nigeria due to many reasons. Among this is that Nigeria is Energy poor[5], secondly, Nigeria is both exporter of crude oil and importer of refined petroleum products. Though there is adequate supply of crude, due to the failure in the production capacity of our refineries stemming from poor maintenance, political and governmental inefficiency and instability hence, there could still be insecurity of supply of refine products. Thirdly, Global Oil Prices (GOP) affects the fluctuation of domestic petroleum product market price and this *creates volatility in pricing regimes.* There are lot more to these reasons as we shall consider in the body of this paper.

Incentives are meant to encourage and attract investors and improve the gas sector. A legal regime which does not incorporate such factors in it policies is bound to encounter insecurity of energy supply more so

[1] Samuel C. Dike, Energy Security, The case of Nigeria and Lessons from Brazil, Norway and the UK
[2] A Goldthau and J. Martin Witte, ' The Role of Rules and Institutions in Global Energy: An introduction' in Andres Golthau and Jan Martin Witte (eds), Global Energy Governance: the ne rules of the game(Global Public Policy Institutions 20100
[3] Ibid (n -!) @ page 147 paragraph 4; Also see G.Gordon et al (eds), Oil and Gas Law-Curreent Practice and emerging Trends (Dundee University Press 2nd edition, 2012) at pages 334 - 338
[4] Silk Muter Goldberg, 'Security of Supply in the Context of the European Energy Market Liberalizations: A Brief Over-view(2011) International Busiiness Law Journal, 443, 447
[5] Energy Commission of Nigeria (The Petroleum Profit Tax Act, LFN, 2004 and the petroleum Act, Laws of the Federation of Nigeria 1969) chapt. 354, 60% of Nigerians lack access to commercial energy

in Nigeria where the government depend heavily on the IOCs to fund it exploration activities especially the upstream operations.[6] The PIB and PIA introduced a range of incentives such as tax abatements, tax revenue sharing, grants, infrastructure assistance, no or low-interest financing, free land, tax credit, the polluter pay principle, the precautionary principles, sustainable development principles and public participations among others.

Conclusively, a competitive and well regulated market will promote security of supply and affordability of energy supply by the government creating enabling environment by various legislative strategies, incentives, subsidies, Tax reforms and a lot more. It is anticipated that in a healthy competitive market, the prices of products may even drop below what the public anticipates from government action of price fixing for instance through the enforcement of Price control Act. [7]

2.0 Conceptual Frame Work:

2.1 Competition. According to Professor Samuel C. Dike in his text book, he defines term competition as:

> The absence of government involvement in petroleum production activities, other than setting the rules for the stake holders[8]
>
> The government by creating enabling environment and competitive atmosphere for market players and allowing the free market forces such as demand and supply to operate can improve and encourage security of supply and stabilize Petroleum Products market price.

2.2 Affordability. Affordability simply means energy prices that are affordable to consumers, rewarding to investors, while addressing the impact of energy on the environment. It is not only concern with whether the prices of petroleum products are high or low. It reflects the full cost of supply[9]

2.3 Security of Supply. The term security of supply is a multifaceted word. However in this pay it is define broadly as a legal measure, which generate adequate supplies of petroleum resources for domestic consumption in a reliable, affordable and sustainable manner.[10]

2.4 Energy Security. It broadly refers to a situation of availability, reliability, affordability and sustainability of energy resources[11]

2.5 Fuel Subsidies. Fuel subsidy is a financial assistance provided by the government to reduce the cost of fuel for consumers. It is done to keep fuel prices lower and make it more affordable for energy poor Nigerians.[12] Fuel subsidy lowers and stabilizes prices. Due to the volatile nature of crude oil prices, which are the primary raw material in the production of petrol, fuel subsidy keeps the fuel price stable and lower for end users.[13]

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[6] Stuart Bell and Donald Mc Gillivray, Environmental Laws (7th edn, OUP 2008) 55, such as sustainable development, Polluters pay principles, Precautionary principles and public participations among others.
[7] Price Control Act, Laws of the Federation of Nigeria, 1977
[8] Ibid, (n-1) @ page 93
[9] Ibid, at page 24
[10] Ibid, page 32
[11] Ibid page 1
[12] United Nations; https://www.un.org › magazine › visited October 23rd ,-2023 › nigeria-
[13] https;//nesgroup.org>blog>cost-and-Benefits-of-Fuel

2.6 Incentives. Government incentives can include tax abatements, tax revenue sharing, grants, infrastructure assistance, no or low-interest financing, free land, tax credits and other financial resource. They are supports by government to stake holders in the oil industry, Incentives serve to create a suitable and enabling environment and attract investors in the Oil and gas sector. Through government incentives, it is more likely that IOCs may which to venture into Oil and gas sector because of it high operational cost involvement, volatility of risk nature, and high level of technical skill required.

2.7 Market Regulation. A rule or directive made and maintained by an authority. [14]Means of control and checks put in place by an authority to govern certain activities. Oil and Gas Regulation covers common issues in oil and gas laws and regulations – including development of oil and natural gas, import/export of natural gas, LNG, import/export of oil, transportation, transmission and distribution and foreign investment – in 26 jurisdictions.[15]
The Federal Energy Regulatory Commission (FERC) is the primary body that regulates oil and gas companies, although a number of other federal offices oversee specific components of the oil and gas industry. BLM regulates federal onshore lands

2.8 Market- Deregulation. Deregulation is the removal or reduction of government regulations in a specific industry. The goals are to allow industries to operate businesses more freely, make decisions efficiently, and remove corporate restrictions. Deregulation involves removing laws and regulations for new businesses hence increasing competition in the market. The more businesses in a market, the more economic activity that occurs. This increases economic growth.[16]

2.9 Polluter Pays Principle. The 'polluter pays' principle is the commonly accepted practice that those who produce pollution should bear the costs of managing it to prevent damage to human health or the environment. For instance, a factory that produces a potentially poisonous substance as a by-product of its activities is usually held responsible for its safe disposal. The polluter pays principle is part of a set of broader principles to guide sustainable development worldwide (formally known as the 1992 Rio Declaration The principle underpins most of the regulation of pollution affecting land, water and air. Pollution is defined in UK law as contamination of the land, water or air by harmful or potentially harmful substances. It is a principle is applied to greenhouse gas emissions.[17]

2.10 Precautionary Principles. Where there is uncertainty about the risk of environmental harm, the precautionary principle allows protective measures to be taken without having to wait until the harm materializes. The precautionary principle, proposed as a new guideline in environmental decision making, has four central components: taking preventive action in the face of uncertainty; shifting the burden of proof to the proponents of an activity; exploring a wide range of alternatives to possibly harmful actions; and increasing environmental hazard awareness.[18]

[14] Oxford English Learners Dictionary, Published by the Oxford English Press.
[15] https://iclg.com › practice-areas › oil-and-gas-laws-and-r...
[16] Corporate Finance Institute, https://corporatefinanceinstitute.com › Resources... visited 25th October, 2023
[17] London School of Economics and Political Science: https://www.lse.ac.uk › ... › Business and climate change visited 23rd October, 2023
[18] Environmental Health perspective, 2001 Sep; 109(9): 871–876;https://www.ncbi.nim.nih.gov/pmc/articles/ PMC1240435/ visited 23rd October, 2023

2.9 Sustainable Development. The Concept of Sustainable Development
According to the Brundtland Report, sustainable development is defined as:
Development that meets the needs of the present without compromising the ability of the feature generation to meet their own needs...A process of change in which exploitation of resources, the direction of investments, the orientation of technology development, and institutional changes are all in harmony and enhance both current and feature potential to meet human needs and aspiration.[19]

Sustainability in the Oil and Gas industry is to get involved with communities, improving their lives with education and decent jobs. Sustainability means to address economic, social and environmental externalities; it is to invest in natural based solutions, such as reforestation and restoring landscapes and habitat lost during operations.[20]

2.10 The Principle of Public Participation. Participation is a process through which all members of a community or organization are involved in and have influence on decisions related to development activities that will affect them.

Public participation affords stakeholders (those that have an interest or stake in an issue, such as individuals, interest groups, and communities) the opportunity to influence decisions that affect their lives. The International Association for Public Participation (IAP2)[21] has developed a 'spectrum of public participation' based on five levels: information, consultation, involvement, collaboration and empowerment'

3.0 Legal and Institutional Frame Work that Promotes Competition, Privatization, Investment and Affordability of Security of Supply in the Oil and Gas Market/Industries of Nigeria.

3.1 Legal Frame Work in the Oil and Gas Sector of Nigeria

There are various laws regulating oil and gas in Nigeria. The principles among these laws are the 1999 Constitution of Nigeria (as amended) and the Petroleum Act, which vested ownership and control of oil found anywhere in Nigeria in the Federal Government. However, the Petroleum Industrial Act (2022), has repealed the Petroleum Act (1969) and still vest ownership of Petroleum found anywhere in the territory or economic zone of Nigeria. The paper shall consider some of them as it relates to the topic under determination.

3.1.2 The Petroleum Industry Act 2021, among other objectives, aims to:
a) Make sweeping reforms by repealing laws like the Petroleum Act of 1969.
b) Create new institutions to govern the operations of the industry, incorporated and privatization of the Nigerian National Petroleum Corporation (NNPC).
c) Transform the existing unincorporated joint ventures between the multinational oil companies and the NNPC into incorporated joint ventures.

[19] World Commission on Environment and Development(WECD)1987,Our common Future, Oxford University Press (also known as the Brundtland Report) pp. 43 and 46
[20] https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwia5Mrc8Y6CAxWZQUEAHTt6B, visited on 23 October, 2023
[21] epa.gov, https://www.epa.gov › international-cooperation › public.

The upstream sector, an active sector of the Nigerian petroleum industry, is largely export focused and until recently dominated exclusively by international oil companies (IOCs). The Nigerian government's marginal fields licensing regime and its local content development drive, have led to resources, including oil and gas, exclusively federal government and further confers on the federal government the exclusive power to new laws and regulations for the governance of the industry[22].

Section 44(3) of the 1999 Constitution, Section 1 Minerals Act, 1 Petroleum Act, Section 2 of the PIB, vest the ownership of all petroleum (and minerals) found in Nigeria, its territorial waters, continental shelf and Exclusive Economic Zone on the Federal Government.

Petroleum Industry Act makes sweeping reforms by repealing laws like the Petroleum Act (PA), creates new institutions to govern the operations of the industry, incorporated and privatization of the Nigerian National Petroleum Corporation (NNPC)[23].

Other legislations impacting, governing, and regulating the Oil and Gas sector in Nigeria are as follows:

3.1.2 The Petroleum Act[24] (PA) with the Schedules and Regulations made pursuant to it: the laws provide the framework for the licensing of oil and gas companies to engage in activities connected with the exploration production, and transportation of crude oil;

3.1.3 The Petroleum Profits Tax Act[25]: it provides the framework, under which the federal government obtains revenue from oil and gas operations by way of signature bonuses, royalties, and taxes;

3.1.4. The Deep Offshore and Inland Basin Production Sharing Contracts Act: this Act gives incentives to oil and gas companies operating in the Deep Offshore and Inland Basin areas under Production Sharing Contracts (PSCs).

3.1.5. The Nigerian National Petroleum Corporation Act: The Act[26] establishes the NNPC and empowers it to participate directly in petroleum operations on behalf of the federal government;

3.1.6. The Environmental Impact Assessment Act[27] - provides the framework for assessing the impact of oil and gas projects on the environment;

3.1.7. **The Federal Inland Revenue Service (FIRS) Establishment Act** 2007[28] - detailing the statutory powers of the FIRS to collect all taxes, fees, levies, royalties, rents, signature bonuses, penalties for gas flaring, depot fees, including fees for oil prospecting licenses, oil mining licenses, etc.;

3.1.8. The Education Tax Act[29] - provides for the imposition of annual taxes of 2 percent of assessable profits on oil and gas companies for the development of Nigeria's educational sector;

[22] S C Dike, Energy Security: The Case of Nigeria and Lessons from Brazil, Norway and the UK (Pearl Publisher, 2015) page...
[23] ibid
[24] Petroleum Act, 1969
[25] The Petroleum Profits Tax Act 1990
[26] The Nigerian National Petroleum Corporation Act 2004
[27] The Environmental Impact Assessment Act 2004
[28] The Federal Inland Revenue Service (FIRS) Establishment Act 2007
[29] The Education Tax Act 2004

3.1.9. The Niger Delta Development Commission (Establishment) Act [30] - It mandates the Payment to the Commission by oil and gas companies of 3% of their annual budgets for the development of the Niger Delta areas where oil and gas are exploited;

3.1.10. The Nigerian Oil and Gas Industry Content Development Act 2010[31]: it provides a framework for promoting the participation of Nigerians in the oil and gas industry and laying down the minimum thresholds for local contents utilized in the sector;

3.1.11. The Nigerian Extractive Industries Transparency Initiative Act 2007[32]: it provides the framework for transparency and accountability by imposing reporting and disclosure obligations on all oil and gas companies upon requirement by NEITI of revenue due to or paid to the federal government;

3.1.12. National Oil Spill Detection and Response Agency (Establishment) Act[33]: it establishes the National Oil Spill Detection and Response Agency (NOSDRA), which coordinates and implements the National Oil spill Contingency Plan (NOSCP) for Nigeria.

3.1.13. **The Oil Pipelines Act**[34]. The Act regulates through grant of licenses and permits the laying and use of pipelines to transport of mineral oils, natural gas and any of their derivatives or components, and also any substance (including steam and water) used or intended to be used in the production or refining or conveying of mineral oils, natural gas and any of their derivatives or components.

3.1.14 Nigerian Environmental Regulation and Emergency Agency (NESREA) Act. This is the supreme act in respect to environmental protection in the oil and gas industries.

3.2 Institutional Frame Work in the Oil and Gas Sector of Nigeria

3.2.1 The Federal Ministry of Petroleum Resources has primary responsibility for policy direction and exercises supervisory oversight over the industry. The Minister of Petroleum Resources (the Minister) issues regulations, guidelines, and directives pursuant to the Petroleum Act and the Petroleum Industry Act[35]. Other important regulatory agencies include the Federal Ministry of the Environment (FME), Nigeria National Petroleum Company limited (NNPC ltd.), the Nigerian Content Development and Monitoring Board (NCDMB), and the National Oil Spill Detection and Response Agency (NOSDRA).[36]

3.2.2 A New Regulatory and Governance Architecture Under the Pia. (2021). The PIA overhauls the regulation and governance of the oil and gas industry. The law provides for two regulatory agencies—the Nigerian Upstream Petroleum Regulatory Commission (NUPRC) called the *Commission* and the Nigerian Midstream and Downstream Petroleum Regulatory Authority, (NMDPRA) also called the *Authority* that will be responsible for the technical and commercial regulation of petroleum operations in their respective

[30] The Niger Delta Development Commission (Establishment) Act 2004
[31] The Nigerian Oil and Gas Industry Content Development Act 2010
[32] The Nigerian Extractive Industries Transparency Initiative Act 2007
[33] National Oil Spill Detection and Response Agency (Establishment) Act 2006
[34] and Response Agency (Establishment) Act 2006
21 The Oil Pipelines Act 2004
[35] K. Cohen, 'Vice President of Mobile: Global Energy Outlook (Petroleum Review 2014) 804, 124.
[36] PwC, https://www.pwc.com › publications › nigeria-petroleu...

sectors, and have the power to acquire, hold, and dispose of property, as well as sue and be sued in their own name.

The law commercializes the perennially loss-making state-owned enterprise, the Nigerian National Petroleum Company (NNPC), turning it into the NNPC Ltd, a quasi-commercial entity the ownership of which shares shall be vested with the government, and the ministries of Finance and Petroleum shall hold the shares on behalf of the government. Per the PIA, the president of Nigeria will appoint th e president of NNPC Ltd as well as heads and members of the regulatory agencies. Separately, the minister of petroleum, then, will head the industry with a wide range of powers to formulate, monitor, and administer government policy under the PIA.

Importantly, the PIA provides that 30 percent of the profits of the NNPC Ltd will fund a new entity, to finance exploration in other basins in the country (Frontier Exploration Fund). Ten percent of rents on petroleum prospecting licenses and 10 percent of rents on petroleum mining leases are also assigned to Frontier exploration. The act is unclear on whether there will continue to be exploration in existing basins.

Nigeria's oil sector is regulated by both the Nigeria Upstream Petroleum Regulatory Commission (the "Commission") and the Nigeria Midstream and Downstream Petroleum Regulatory Authority (the "Authority").

4.0 New Licensing Regimes under the Petroleum Industry Act 2021[37]

The minister shall upon the recommendation of the commission, grants Petroleum Prospecting Licenses (PPL) and Petroleum Mining Leases (PML) through the process established in the Act[38]

The Nigerian Midstream and Downstream Regulatory Authority (Authority) is the new body that is responsible for regulating the Midstream and Downstream sectors and is responsible for issuing licences to operators in these sectors.

4.1 Grant of Licences and Permits in Midstream and Downstream Petroleum

The Function of the Authority among others is to publish the applications for the grant of licence or renewal in respect to the mid-stream and down-stream operation of which comments or representations may be made.[39]There is an obligation to comply with the Land Use Act as it relates to compensation for acquisition of land in respect of which a licence or permit has been issued by the Authority for Midstream and Downstream petroleum operations.[40]

4.2 Licences in Midstream and Downstream Gas Operations

The activities that require a licence in the midstream and downstream gas operations include establishing, constructing or operating a facility for the processing and storage, of natural gas, engaging in wholesale gas supply, etc.[41] Licences to be obtained under the Midstream and Downstream gas operations include:[42]

[37] Petroleum Industrial Act, 2021, Section 3 (g)
[38] Ibid
[39] Petroleum Industrial Act 2021, Section 32 (i) – (j)
[40] ibid
[41] ibid
[42] Petroleum Industrial Act, Section 32 (a) – (b)

a. Gas processing licence – grants the licensee the right to install and operate gas conditioning plants, gas processing plants, gas to liquids plants, liquefied natural gas (LNG) plants and ethane extraction plants.[43]

b. Bulk gas storage licence – grants the licensee the right to undertake the bulk storage of natural gas either for its own account or on behalf of customers.[44]

c. Gas transportation pipeline licence – gives the holder the exclusive right to own, construct, operate and maintain a gas transportation pipeline within a route defined in the licence for its own account with third party access or as common carrier.[45] The holder cannot supply gas to customers on its own account where it is granted on a common carrier basis.[46]The licence is also required for unprocessed gas that needs to be transported.[47]

d. Gas transportation network operator licence – authorises the holder to convey natural gas through the gas transportation network, balance the inputs and off takes from the gas transportation network, charge for the use of the gas transportation network, etc.[48]

e. Wholesale gas supply licence – authorises the holder to purchase natural gas directly from any lessee or third party and sell and deliver wholesale gas to wholesale customers and gas distributors at any location in Nigeria.[49]

f. Retail gas supply licence – authorises the holder to sell or retail compressed or liquefied marketable natural gas to customers and establish, construct and operate facilities to deliver compressed natural gas and small-scale facilities for LNG.[50] It also authorises the holder to purchase marketable natural gas directly from a lessee, wholesale gas supplier or third party, and sell and deliver compressed or LNG to customers at any location in Nigeria on a free market basis.[51]

g. Gas distribution licence – grants the holder the right to establish, construct, and operate a gas distribution system and to distribute and sell its natural gas to consumers in a local distribution zone,[52] including retail customers.[53]

[43] ibid
[44] Petroleum Industrial Act(PIA) 2021, section 32 (b) –(c)
[45] https:/goldsmithllp.com/new-licensing-regimes-under-the-petroleum-industry-act-2021-gs-series-ii-part-b
[46] https:/goldsmithllp.com/new-licensing-regimes-under-the-petroleum-industry-act-2021-gs-series-ii-part-b
[47] https:/goldsmithllp.com/new-licensing-regimes-under-the-petroleum-industry-act-2021-gs-series-ii-part-b
[48] https:/goldsmithllp.com/new-licensing-regimes-under-the-petroleum-industry-act-2021-gs-series-ii-part-b
[49] Ibid
[50] Ibid
[51] Ibid
[52] Ibid
[53] Ibid

h. Domestic gas aggregation licence – the licence is issued for a period of 2 years and renewal in each instance is also for 2 years.[54] A domestic gas aggregator supports the implementation of the domestic gas delivery obligation in addition to other functions that it is expected to carry out.[55] The domestic gas aggregator is required to be a company limited by guarantee established under the Companies and Allied Matters Act.[56]

4.3 Midstream and Downstream Petroleum Liquid Operations

The following licences may be granted to qualified applicants in the midstream and downstream liquid sector:

a. Crude oil refining licence – permits the licensee to procure, construct, install and operate facilities to process crude oil on its own account into derivative chemicals and petroleum products and to sell such chemicals and petroleum products.[57] The licence gives the holder right of access to facilities which include harbours, jetties, petroleum bulk storage, transportation facilities and pumping installations. [58]
b. Bulk petroleum liquids storage licence – authorises its holder to undertake the bulk storage of petroleum liquids whether for its own account or on behalf of customers.[59]

c. Petroleum liquids transportation pipeline licence – grants the holder the exclusive right to own, construct, operate and maintain a transportation pipeline for the transportation of petroleum liquids within a defined route.[60]

d. Petroleum liquids transportation network operator licence – gives the holder the right to:[61]
    1. Convey petroleum liquids through the transportation network;
    2. Balance the inputs and off takes from the transportation network.

e. Wholesale petroleum liquids supply licence – authorises the supplier (the holder) to sell and deliver petroleum liquids to bulk customers in Nigeria or for export.[62] The company that is entitled to this licence is one that is a lessee producing crude oil or condensates or both or a holder of a crude oil refining licence.[63]

[54] Ibid
[55] Petroleum Industrial Act 2021, Section 32(a) (b)
[56] https:/goldsmithllp.com/new-licensing-regimes-under-the-petroleum-industry-act-2021-gs-series-ii-part-b
[57] https:/goldsmithllp.com/new-licensing-regimes-under-the-petroleum-industry-act-2021-gs-series-ii-part-b
[58] Petroleum Industrial Act 2021, section 33
[59] Ibid
[60] Petroleum Industrial Act 2021, section 33 (I)
[61] Petroleum Industrial Act 2021, section 32 (u) – (z)
[62] Ibid Section 32
[63] Petroleum Industrial Act 2021,Section 32

f. Petroleum products distribution licence – authorises the licensee to distribute petroleum products.[64] The licensee has the duty to carry out its activities in line with the provisions of the Act.

g. Licence to construct and operate a facility for retail supply and distribution of petroleum products – authorises the holder to establish, construct and operate a facility to be employed for retail sale of petroleum products.[65]

h. Licence to operate a facility for the production of petrochemicals – authorises the holder to establish, construct and operate a facility for the production of petrochemicals and sell the petrochemicals produced.[66]

4.4 Environmental Management

Licensee and lessors in upstream and midstream petroleum operations are to submit an environmental management plan to their respective regulators in respect of projects requiring environmental impact assessment.[67] The Act seeks to ensure an **eco-friendly petroleum operation** by making contributions towards remediation of environmental damage by licensees and lessees a condition for the grant of the licence or lease.[68]

Under the PIA, the agency that now has the responsibility for licensing with the midstream and downstream sectors is the Nigerian Midstream and Downstream Regulatory Authority. There are now a variety of licenses to be obtained either in the gas or petroleum liquid operations under the midstream or downstream sectors. These include *Gas processing licence, Bulk gas storage licence, Gas transportation pipeline licence, Gas transportation network operator licence, crude oil refining licence*[69] etc

5.0 Perceived Obstacles to Reforms in the Energy Sector

Considering the growing gap of insatiability of oil and gas consumer demands on the one hand, and on the other, the availability (sometimes unavailable) of critical energy products to yearning consumers in Nigeria with contentious costs, reasonably points of the challenges in the country's energy market management. Further, what is easily identifiable in the situation is the appropriateness of preferred regulatory approaches and measures. An appropriate decision on market management has huge potentials for altering outcome trajectories where service and products suppliers interact with consumers. This would subsist without leaving any more guesses for causes of diminished product availability, increasing costs due to scarcity and the perennial slow pace in economic transitions which necessitated the reforms.

Incoherence in approach yields a more complex market outcome with varying degrees of untoward economic proportions. Notwithstanding the global regulatory vulnerabilities of energy products consistent

[64] Ibid
[65] Ibid
[66] Ibid subsection (i) – (j)
[67] Ibid
[68] Ibid
[69] https:/goldsmithllp.com/new-licensing-regimes-under-the-petroleum-industry-act-2021-gs-series-ii-part-b

with oil and gas, internal markets require focused and purposeful regulatory management designed to redress identified gaps and needs. Further, considering policy dynamics to reach self - sufficiency by countries which had depended on Nigeria's oil exports, measures projections can be instituted to obviate likely consequences of probable reduction in oil. An economic diversification through present revenues from the sector and importantly, appropriate regulatory measures, would be imperative.[70]

It is however crucial to determine ways of ensuring the sustainability of succeeding frameworks in the aftermath of the reform. The measures would initiate and enhance self-implementing competition processes capable of securing integrity of sector market entry and exist. For example, during the process preceding unbundling of the Power Holding Company of Nigeria (PHCN) it is unclear how issues of false mergers were managed to prevent alliances that may prove untoward to the growth of sector.[71]

Further, in the aftermath of unbundling, successor companies are likely to experience market based challenges without the likelihood of redress. Nigeria's effort towards getting into the bracket of top global economic powers got a boost recently when there was a launch of a gas-driven economic roadmap. It was observed that the plan, code-named "'Gas Revolution: Rebirth of Nigeria's industrialization", was also used as an occasion for the signing of the Memoranda of Understanding (MOU) among the Nigerian National Petroleum Corporation (NNPC), Xenel of Saudi Arabia for the construction of a petrochemical plant, and Nagarjuna of India for the setting up of fertilizers plants[72]

With a promising oil sector, even in the new "global quest for alternatives", there is a vacuum and critical market-driven economic requirement which competition policy can aptly fill in Nigeria. A conflicted energy market will continue to be crisis ridden. This situation results in possible distortions that may arise from intermittent shocks from intervening factors that pose challenges for stability in the sector. Identified factors that tend to undermine effective competition require potent measures for control, with appropriate sanctions and remedies for specific instances. While competition rules may not be insufficient to resolve catalogue of existing problems in the Nigerian energy sector, a market-wide economic regulation from an independent competition agency is sine qua non for a competitive energy sector. New entrants into the energy and other markets would require an agency capable of enforcing competition rules and provide remedies where it is necessary. The regulatory agency would, through its functions, restore the needed confidence among consumers to secure routine processes that guarantee transparency in market. Crucial activity of such agency relates to guaranteeing integrity of information on supply chains capable of altering demand and choices of consumers in relevant markets. Information management in a liberalized market is important in facilitating efficient governanc. The Federal High Court sitting in Abuja declared the policy of deregulation to be unconstitutional, illegal, null and void, and ordered the government to fix and publish regularly the prices of petroleum products Ruling in the case of Bamidele Aturu vs. Minister of Petroleum

[70] Center for Petroleum Mineral Law and Policy, 'Security of International Oil and Gas: Challenges and Research Priorities (2006), Interim Report, University of Dundee 14, for Range of Issues Affecting Importers and Exporters

[71] Nigeria Electricity privatization, *http://www.nigeriaelectrictyprivatization.com/?page_id=2, accessed 2nd October, 2023.*

[72] *http://odili.net/news/source/2023/oct/02/20,html, accessed October 2, 2023*

Resources and the Attorney General of The Federation, Justice M. Bello ordered the defendants, their agents, privies, collaborators and whosoever and howsoever to desist from deregulating the downstream sector of the petroleum industry or from failing to fix the prices of petroleum products as mandatorily required by the Petroleum Act and the Price Control Act. Further, it is important to note that the court's remedial orders include:

a) A declaration that the policy decision of the defendants to deregulate the downstream sector of the petroleum industry by not fixing the prices at which petroleum products may be sold in Nigeria is unlawful, illegal, null, void and of no effect whatsoever being in vicious violation of the mandatory provision of section 6 of the Petroleum Act.[73]

b) A Declaration that the policy decision of the Defendants to deregulate the downstream sector of the petroleum industry by not fixing the prices at which petroleum products may be sold in Nigeria is unlawful, illegal, null, void and of no effect whatsoever being in flagrant violation of the mandatory provision of section 4 of the Price Control Act.[74]

c) A declaration that the policy decision of the defendants to deregulate the downstream sector of the petroleum industry by not fixing the prices at which petroleum products may be sold in Nigeria is unlawful, illegal, null, void and of no effect whatsoever being in conflict with S.16 (1) (b) of the Constitution of the Federal Republic of Nigeria, 1999 which provides that the Government shall control the national economy in such manner as to secure the maximum welfare, freedom and happiness of every citizen on the basis of social justice and equality of status and opportunity.

d) A declaration that that the policy decision of the defendants to deregulate the downstream sector of the petroleum industry by not fixing the prices at which petroleum products may be sold in Nigeria has the effect of making the freedom of movement guaranteed in section 41 of the Constitution of the Federal Republic of Nigeria, 1999 illusory for the Plaintiff and the generality of Nigerians and is therefore illegal, unconscionable and unconstitutional and of no effect whatsoever.

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The matter highlights two major issues. First, it highlights status of the issue of locus standi or right of action, which would have required the Counsel to prove he suffered more harm from the deregulation than every other Nigerian. Second, and importantly, it provides an insight into confusion which feeds current realities of the petroleum sector for example, the question of prices being fixed by the government on the one hand and on the other hand, allowing market forces of demand and supply to determine prices. The latter would operate outside the stipulations of the Price Control Act and be consistent with features of deregulated sector

The imperative of effective competition law is vital in a post reform sector of Nigeria. Countries in transition require appropriate institutional framework for enforcement of competition rules for their vibrant markets. The development process evolves rapidly with timely principles and measures that enshrine the tenets of

[73] Cap P.10, Laws of the Federation of Nigeria (LFN), 2004, section 6
[74] cap P28, Laws of the Federation of Nigeria, 2004,

market regulatory governance before, during and post reforms. The energy sector is vital to national development.[75] Developing countries' past experiences of misapplication of funds and priorities have a renewed opportunity in the energy sector by creating an enabling market environment for businesses to grow and consumers to make choices from quality products unhindered through healthy competition. The multiplier effects of a robust energy market would provide rapid reversal and amelioration of decay in manufacturing, transport, education and other crucial sectors of the economy capable of impacting the quality of lives of people. Consequently, government's intervention is necessary in market place. An intervention is more relevant through appropriate rules and structures that will curb anti-competitive practices in the market places through economy-wide competition regime rather than sector-specific enforcements.

6.0 Issue Based Approach

In ensuring sustainable fiscal responsibility for a viable process, basic issues which emerge in the circumstance include (a) what are the policy options available to low income countries to promote energy security, energy access and sustainable energy use; (b) are there global best practices that can provide pragmatic frameworks for countries in transition; (c) what are the likely impacts of alternative energy policy choices considering the development trajectory in Africa? The paper utilizes a three pronged issue-based approach to examine selected issues while adopting a cross-jurisdictional approach in evaluating practices for purposes of determining appropriate competition regulatory model. The Issue-based Approach are:

a. Competition Law- Legal framework on deregulation of market in Nigeria is applied to identify relevance and appropriateness of sector-specific competition regulation.

b. Nature and Purpose of Market Reforms - interrogating general and specific purposes of market liberalization and identifying their linkages to improved productivity, fiscal management and competitiveness in national, regional, and international tier Segmentations.[76]

In examining the issues within the context of the global energy market interdependency, we recognize the trite notion that competitions are fundamental in the operation of markets.
Unfortunately, in some markets, certain players often lobby for anti-competitive policies, of course for pecuniary benefits. It is however recog-nizable that this is to the disadvantage of the economy and the populace, as it denies them the best service and stifles economic growth. Further, barriers to competition harm innovation, productivity and growth in countries.[77]

Affordability of Energy Resources: According to Elkin, Affordability is defined as transparency of energy prices devoid of volatility.[78] For him, affordability is not much concern with whether 'Energy prices are lower or higher than the disposable income' However Professor Samuel C. Dike, in his book Energy

[75] *"FG set to reveal national content in power sector", Thursday, May 23, 2013, pg. 3.*
[76] Ibid
[77] *.com/multiple-regulators-unhealthy-oil-gas-industry-dpr, accessed 2nd October, 2023.*
[78] Jonathan Elkind, 'Energy security: Call for a Broader agender' in C Pascual and J Elkind , Energy Security, Economics, Politics, Stratergies and Implications (Brookings *Institutions Press 2010) 121, 128-129*
.com/multiple-regulators-unhealthy-oil-gas-industry-dpr, accessed 2nd October, 2023

Security, Defined Affordability as energy price that are affordable to all consumers, rewarding to investors, while addressing the impact of energy on the environment.[79]

He also opines that threat to affordability is also to energy security and identified this as lack of transparent petroleum industry, ineffective regulatory frame work and failure of the Nigerian state to guarantee in the Petroleum `Act, as of right, the supply of petroleum product for domestic consumers.

Myriads of reasons have shown that Affordability is significant indicator of security of supply in Nigeria due to the following reasons:[80]

1. Nigeria is energy poor.[81] And this is due to high Energy price.[82]
2. Nigeria is both exporter and importer of refined petroleum products.[83]
3. Thirdly, Domestic petroleum product prices are affected by the global oil prices and this creates volatility in pricing regimes.[84]
4. There is a need to stimulate domestic consumption of commercial fuel in Nigeria[85]
5. Federal government claims that the price of petroleum product in Nigeria is lower than neighbouring west African countries and as such the government subsidy is of no significant impact
6. Subsidy distort price and efficiency in services delivery; however, some level of subsidy is imperative for the deprived energy poor in Nigeria.

7.0 Cross-Industry Benchmarks in Formulating and Interpreting Competition Policy

In a model competition driven sector, such as energy, emphasis must be placed on indices and parameters which comprise an economy wide independent coordinating authority to consistently manage the market to secure operational efficiency for optimal deliverables. These benchmarks include:

a) Protection of consumers' welfare through prohibition of anti-competitive conducts by services or products providers in any market.
b) Impact of firms' growth and national economy.
c) Enforcement and Administration of Competition Process rules.
d) Cartels activities
e) Abuse of Dominance (refusal to deal, tying, predatory pricing, price gouging etc.)
f) Impact of potential mergers and acquisitions by companies or joint ventures schemes.

[79] S.C. Dike (Supra) @ page 98
[80] Ibid.
[81] Energy commission of Nigeria, it reports that 60% of Nigerians lack access to commercial energy
[82] University of Twente and Friend of the Environment, 'Nigeria Energy Study Report: Enabling urban poor Lively hood-policy making; Understanding the role of Energy services (2005) …..
[83] NNPC, '2011 Annual Statitics ' (20120 54-55 showing level of importation.
[84] I.O. Ogundari, A.S Momudu, J. B. Akarakiri, W.O Siyanbola and O. A Jesuleye, Kereson subsidy and Oil Deregulation pPolicy development (NAEE 2011) 110 & -117, on low supply of products.
[85] Fidelise O. Ogumike and Uchechukwu MOzughalu, 'Energy Consumption, Poverty and Environmental Linkages in Nigeria: The case of Traditional and Modern fuels for cooking'….

Generally, the focus of competition law or anti-trust naturally extends to sanctioning anticompetitive behaviours, practices and the prohibition of activities that frustrate the competition process subject to remedies.

8.0 Impact of Petroleum Subsidy Removal on Market Competition

The deregulation of the downstream petroleum sector following the removal of petrol subsidy is expected to spur mergers and acquisitions as fresh competition begins to take shape. The removal of petrol subsidy has opened up the market to increased competition, prompting marketers to explore strategic options to maintain or increase their market share. Existing businesses may join forces or acquire other companies to strengthen their market position, improve efficiency, and gain a competitive advantage in the deregulated market. There is a likelihood of mergers and acquisitions taking place among companies. It is possible to see mergers and acquisitions go on. It is possible that retail outlets will be structured in a way that is highly optimized,' removal of subsidy will unlock investment opportunities for pipeline infrastructure, coastal vessels for marine transportation and reception facilities.[86] It will bring clarity to consumption figures; attract multiple players to the sector and reception facilities. It will bring clarity to consumption figures, attract multiple players to the sector and foster competition among various fuels, including Liquefied Petroleum Gas (LPG), Premium Motor Spirit (PMS), and Compressed Natural Gas (CNG). The country needs investments to expand the fuels market.[87] With the present direction of flow of the market today there is going to be consolidation in order to optimize the barriers to entry. The adoption of technologies for improved distribution efficiency and customer experience, along with improved corporate governance and industry self-regulation, will be promoted. Fair tax policies will be sought to consolidate taxes and reduce the burden on the industry.[88]

Mergers and acquisitions as a strategic response to the changing market dynamics is to optimize operations and improve overall competitiveness. Restrictive agreements, often referred to as cartels, must be dismantled to promote fair competition and prevent anti-competitive practices. Dominant market players must be cautious not to abuse their position by excluding competitors or engaging in discriminatory practices and pricing strategies.

The NMDPRA and the Federal Competition and Consumer Protection Commission Lagos should collaborate and have a harmonious regulatory framework that provides clear guidance.

Creating an attractive investment climate will require improving the means of doing business in Nigeria, ensuring favourable returns on investment, and addressing factors such as ease of doing business, production and cost.

To cushion the impact of the subsidy removal, businesses in the informal sector should be registered and provided with tax-free credits for a period of at least two years. This registration process will also generate a valuable database for future economic decision-making the savings from this subsidy removal, should be used to pay salary, pension, and contractor arrears.

[86] *Swann D. 1984, The Economics of the Common Market, 5"" edition, Penguin Books, pg. 232*.
[87] Ibid
[88] Ibid

These are some interventions that will help stimulate growth in the economy and cushion the impacts of subsidy without creating another form of subsidy that is unsustainable or to fund some level of corruption.

9.0 Competition and Regulation as Determinants of FDI In Flows to the Upstream Oil and Gas Industry

Foreign direct investment (FDI) refers to the investment undertaking of a firm in an overseas enterprise in which the foreign investor has a long-term interest as well as substantial control.[89] FDI is viewed as a major stimulus to economic growth in developing countries.

UNCTAD's report (2003) revealed that in 2002 China, Hong Kong, Singapore, Malaysia, Indonesia, Korea, Taiwan, Thailand, India, and Vietnam were the top 10 recipients of FDI inflow amongst the countries in Asia, accounting for over 97% of total FDI in the region.[90]The important advantages which might have made them very attractive to foreign investors include the market size and increased openness in the case of China, and improved policy and strong economic fundamentals in the case of such countries as Malaysia and Thailand. In addition to these socioeconomic and political variables, another factor is the presence of natural resources such as mineral ores, petroleum and natural gas, coal, and other raw materials, the availability of which may also act as location specific advantage in attracting FDI to host countries .37 It was 38 noted that FDI inflows to the oil and gas industry is of the resource seeking kind, which means that one of the key reasons for the international oil companies (IOCs) investing in such country is because of its natural resources. For example, Azerbaijan, which is not even in the top 10 developing Asian FDI recipients, had the highest ratio of FDI to gross domestic product (GDP), reflecting the importance of EDI in its hydrocarbons development (ADB, 2004). The resource seeking FDI mostly requires substantial capital expenditure and is relatively location-bound. Another distinctive characteristic is that while large capital investment is required, it takes a long time to explore and develop oil and gas deposits, thus requiring more time for accruing benefits of such development.[91]

The upstream oil and gas industry has been identified by many developing governments as a priority development sector with considerable potential. Historically, the sector has been strictly controlled by the state, leading to lack of investments and poor operational efficiencies. Removing restrictions and providing good business operating conditions are generally believed to have a positive effect on FDI.[92] Many governments are now working hard to improve the legal and fiscal framework to provide the long-term clarity, stability and consistency needed to sustain the significant level of foreign investment required. The most important of the regulatory changes in the upstream oil and gas industry has been the adoption of production sharing legislation. This form of legislation, which is an effective and speedy method of jumpstarting the upstream oil and gas sector, has been adopted in many governments as a proven means of reducing the perceived risks of investment by the host countries (Pongsiri, 2004).[93] The objective is to enact a workable and enabling law to accelerate exploration and production of oil and gas activities. This

[89] Ayoade D. 2009 ""Deregulation of the Downstream Petroleum Sector in Nigeria - Can it Resolve the Energy Crisis?", paper presented at
the Nigerian Law Teachers Conference, Umuahia, Abia State, May 2009, p.2.
[90] Ibid
[91] Ibid
[92] G U Nwokeji, 'the Nigerian National Petroleum Corporation and the Development of the Nigerian Oil and Gas Industry: History, Strategies and Current Direction' (2007). The James Baker 111 Institute for public policy of Rice University 16 – 25.
[93] Ibid

is seen as contributing to the increased FDI flows into countries with large or potentially large petroleum deposits. However, the lack of transparency in investment approval procedures and an extensive bureaucratic system in some countries such as Nigeria are still deterring FDI.[94]……

In response to the need to provide an investor-friendly environment, many developing governments have become more willing to offer numerous financial and non-financial incentives to foreign investors in order to encourage them to increase FDI flows (UNCTAD, 2003).[95] These include fiscal incentives, financial incentives and market preferences. Fiscal incentives include tax reductions, accelerated depreciation, investment and reinvestment allowances, and exemptions from import and export duties. Financial incentives include subsidies, grants and loan guarantees. Market preferences include monopoly rights, protection from import competition and preferential government contracts. Governments also offer low-cost infrastructure (electricity for example). For the upstream industry, one incentive designed under the production-sharing legislation to encourage exploration and development of certain types of Oil and gas is to allow investors to "expense" some of their exploration and development costs (deduct them from their taxable income when they are incurred) rather than capitalize them (deduct them over time as the resulting income is generated). However, the foreign company usually assumes the entire exploration cost risk, and receives a specified share of production as reward for its initial investment, operating expenses, and the work performed.[96]

There are gas fiscal incentives under the PIA - a maximum of 10-year gas tax holiday and benefits under S.39 of the Companies Income Tax Act, and investors in gas pipeline will be granted an additional tax-free period of five years at the expiration of the tax-free period granted in the Companies Income Tax Act and the PIA.[97]

10.0 Regulation and Investment: The Thailand Experience

Thailand, Southeast Asia's second-largest economy, has grown in the past generation or two from an undeveloped country to what the World Bank calls a "middle-income" country. Over the last four decades, Thailand is one of the great development success stories and has made remarkable progress in social and economic development, moving from a low-income country to an upper-income country in less than a generation, due to smart economic policies.[98]

Oil and gas development projects are characterized by large capital investments which include a clear determination of the risks and rewards of each investment opportunity. It is necessary for developing countries to provide an investor-friendly environment towards provisions of numerous *incentives to foreign investors, especially international oil companies (IOCs), to increase direct investment flows.* The establishment of a stable and secure environment is a fundamental way that host governments can play a vital role in reducing risk and promoting opportunity through the implementation of suitable regulatory terms and conditions for exploration and production (E&P) work, *as well as sufficient economic incentives to attract foreign investment capital.*

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94 Ibid
95 Ibid
96 *h*ttp://www.bangkokpost.com, *Accessed 23rd October, 2023*
97 Companies Income Tax Act 1961, section 39 and the Petroleum Industry Act, section302 (6)
98 *http://www.worldbank.org, accessed on 2nd October, 2023*

In general, IOCs will diversify risks and prioritize their portfolios to invest in the potential markets that can provide them the highest commercial return. Evidence from Thailand indicates that IOCs require favourable investment climate to maintain active development of upstream oil and gas resources. Due to the high-risk nature of Thailand's geological setting, IOCs need to have managerial and operational flexibilities when investing in and executing work programmes without mandatory government intervention. Considered whether regulation and incentives are written in ways so that it helps facilitate new foreign investments. Apart from legal certainty, Thailand's upstream investment climate is also strengthened by enhancing the working relationship between the government and the IOCs.[99]

Foreign direct investment (FDI) is an important source of capital for growth in developing countries. It provides a package of new technologies, management techniques, finance and market access for the production of goods and services; and thus contributes significantly to raising total factor productivity in host countries in attaining their overall economic growth.[100] The influx of foreign capital to developing countries has made foreign investors become an important financier and long-term operator of infrastructure activities, especially in the water, transport, telecommunications and energy sectors. The rapid pace of economic growth and the transformation from an agricultural and resource-based economy to a more dynamic export led economy has contributed to higher energy consumption in many developing countries. Although most of the world's proven oil and gas reserves are located in those countries, very few had sufficient financial resources for their upstream investments, especially for development of oil and gas exploration and production.

Most developing countries grant development rights to foreign companies which have adequate capital, technology and expertise, including capabilities to manage risks towards their diversified portfolios.[101]

The history of upstream foreign direct investment during the past decades has been one of constant interaction between the development of the natural resources of host countries with large or potentially large petroleum deposits and the work of international oil companies (IOCs) with their huge technology, capital, and management resources.[102] *Owing to difficulties in gaining access to risk capital and lack of expertise needed for resource exploration and development, most upstream oil and gas development projects in developing countries were financed by the IOCs. This situation changed during the 1970s, when an issue of sovereignty was highlighted, causing governments to become heavily involved in the petroleum sector to ensure better control of their reserves. Consequently, funds for oil and gas projects came from government budgets and official borrowing, as well as from IOCs. In the early 1990s, emphasis shifted again toward private sector financing, as most governments began limiting their involvement in, and budgetary contributions to, the oil and gas sector. However, IOCs have become less willing to finance these projects on their own and have begun to include a wide range of partners in projects for a variety of reasons, including a political need for local participation and a* desire to share project risks. As a result, funding of upstream oil and gas projects has become quite complex, involving public as well as private investors and financiers.[103] This challenges has it toll on security of supply. The inability of Nigeria government to respond to cash-call from the Joint venture agreement with the IOCs constitute, a very major

[99] *ttp://www.ideas.repec.org accessed on 2nd October, 2023*
[100] Ibid
[101] http://www.researchgate.net, Accessed 23rd October, 2023
[102] Ibid
[103] Ibid

challenge to energy security and security of supply. In addition to the afore mentioned, the in ability of Nigerian government to maintain her four refineries is also a reason for Nigerians to be energy poor though blessed with a lot of crude oil reserve.

11.0 Foreign Direct Investment (FDI) in Thailand's Upstream Oil and Gas Industry:

In the early 1980s, most of Thailand's commercial energy requirements were met by imports. Out of the total demand, imported energy accounted for over 90 per cent, mainly in the form of petroleum. Eighty percent of the country's electricity was produced by burning imported fuel oil.[104]

Due to the heavy reliance on imported energy, the country was seriously affected by the 1973 and 1979 oil price shocks, partly because of a delay in passing on the increased prices to domestic users. As a consequence, the Thai Government took steps toward lessening energy dependence through the use of Thailand's energy policy, in conjunction with the National Economic and Social Development Plans (NESDP), to promote and encourage private sector involvement in the exploration and development of indigenous petroleum resources which consist of natural gas, condensate, and crude oil. A concerted effort on large-scale development of Thailand's indigenous sources of energy using the past 20 years by both private and public sectors has reduced energy dependence significantly,. The share of energy imported for commercial energy requirements decreased from 90 per cent in 1980 to about 61 per cent in 2001 (NEPO, 2000)[105]

In the past, the primary objective of Thailand's energy policy was to ensure energy security, defined solely in terms of oil. As the oil crisis was perceived as an external threat, improving energy security has been largely seen in terms of reducing future oil imports through energy conservation, expansion of indigenous resources, and oil substitution, while having measures ready to respond to any sudden disruption in external supply (NEPO, 1997). However, under the current economic conditions, one of the most important aims of energy policy is to promote privatization and liberalization programmes. One of the outcomes of those programmes is to ensure that enough competition will be achieved and sustained.[106]

In September 1992, the Thai Government amended a regulation for private participation in the state-owned enterprises. In energy-related industries, private participation can be measured by total investment (private and public contributions) in energy projects. Most developing countries have promoted private participation in energy as part of broader sectarian reforms aimed at creating efficient and competitive energy markets.56 This approach has been reflected in an emphasis toward privatization and market liberalization, which are targeted at improving the productivity of investment in the economy and are likely to improve substantially the quality of domestic investment and its positive impact on economic recovery and sustained growth. These significant changes could impact on energy sector development in the economic setting[107]

The underlying rationale and objectives of today's energy policy thus include programs to reduce the country's dependence on energy imports toward enhancement of private investment in exploration and production of domestic oil and gas resources through attractive fiscal measures. With consistent economic

[104] *http://www.investopedia.com/investing , accessed 28th October, 2023*
[105] Ibid
[106] Ibid
[107] http://www.worldbank.org, accessed on 2nd October, 2023

growth, the energy demand growth rate, which typically exceeds the economic growth rate, is projected to grow significantly over the next decade.

Thailand's upstream sector continues to evolve to meet this growing demand The Economic Context of Thailand's Upstream Investment The reason for -explaining the relevant markets and marketing of oil and gas is to draw attention to an aspect which has a critical impact on field development and hence understanding of the industry. If economically attractive reserves of oil are found, the market is not a constraint on its development. However, if a commercial gas field is discovered, gas cannot easily be stored or transported by tankers like oil. Its production therefore is completely dependent on having an established market; otherwise there will be LO development. Gas producers usually seek long-term contracts, generally fifteen or twenty years and often with take-or-pay terms, to guarantee the volume of the off-take. Before governments sign a long- term contact, they will want to be sure of their own requirements, of the gas reserves backing, of the producer's financial strength and technical ability, and many other commercial aspects For the purpose of promoting petroleum exploration and production and to attract more investors, Thailand enacted the Petroleum Act and Petroleum Income Tax Act of 1971.[108]

Following the establishment of the regulatory framework, the first offshore exploration wells were drilled in the search for oil. However, gas rather than oil was the principal hydrocarbon found in offshore concessions in the Gulf of Thailand. Subsequent exploration determined that large quantities were recoverable, sufficient to favourably alter Thailand's energy position.[109]

Union Oil Company of California, later to be known as Unocal, put the supply, transportation and market components together for the first successful project from the Gulf of Thailand that started production in 1981. Once Unocal had demonstrated that the gas could be an economically viable source for power, and later a resource for a petrochemical industry, other IOCs were encouraged to apply for new concessions, since 1990 more than 500 exploration and appraisal wells have been drilled, with the vast majority in the offshore Gulf of Thailand.[110] At present, natural gas developed is for domestic use only due to a ready market and sufficient infrastructure. Although successful upstream development has been observed, Thailand's below-ground resources are still less attractive than others in the region.

In addition, the faults are leaky, requiring active recharging to sustain gas accumulations. The rate of depletion from a single reservoir or single well is very high and continued investment in drilling and the installation of wellhead platforms is required to maintain the contracted production levels, typically about 120 wells per year.[111]

12.0 Findings

1. The oil and gas sub-sector of the economy is a major determinate of the economic wellbeing of Nigeria, and has placed her on the global oil and gas market.
2. There is a global market interdependency, hence competition is fundamen- tal and inevitable in the operation of the market.

[108] Ibid
[109] Ibid
[110] *http*://www.worldbank.org, accessed on 2nd October, 2023
[111] Ibid

3. Wide-range package regulatory framework is essential for the oil and gas sector to promote a level playing round, protect consumer interest and encourage innovation and competition.
4. There is a value-chain in the oil and gas subsector in Nigeria.
5. Certain player in the global and even regional market would opt and even lobby for anticompetitive policies for peculiarly benefits.
6. There are global best practices that can provide pragmatic framework for countries in transaction.
7. The greater determent to FDI inflow to the Energy sector is the regulatory environment and attitude of the host country. Foreign investor will be kept away and will seek a more hospitable place to invest if regulation is unlimited in scope, unclear in operation and inclined towards micro management.
8. Nigeria has an avalanche of regulatory framework for the Energy sector, with a view to provide efficiency and a level playground for players in the sector.

13.0 Conclusion

Most developing countries are facing ongoing challenges in developing and marketing of oil and gas reserves. The prospect below-ground risk, by its nature, deteriorates he expected returns from a given investment. Those countries have no option but to continue to attract foreign investment for their upstream opportunities. They can ensure a sustainable development of the oil and gas industry by providing a robust legal, fiscal and regulatory framework that is attractive to foreign investors and that benefits the citizens of the country. The increasing FDI inflow to the oil and gas industry has been driven by discoveries of important natural gas fields, the strong growth in energy demand, and also constraints in public sector budgets.

Meanwhile, the government needs to ensure that the increase of competition in the energy supply industry and the promotion of a greater foreign investor role will lead to efficient utilization, procurement and distribution of energy, as well as a reduction in the investment burden of the government. Most oil and gas deposits in Nigeria are located offshore in thousands of small reservoirs with complex geology and relatively small resource potential.

Upstream oil and gas development requires large and continuous investment past evidence reveals that international oil companies (IOCs) could play the leading role in developing or expanding indigenous sources of energy supply. However, this study traces some of the means by which the Thai Government may need to further offer long-term commitments to retain quality investors and attract new global investors who are ready to invest and employ their best human, financial and technical skills. At a more substantive level, upstream investors will not have access to reserves in an overly competitive environment which is generally less attractive due to the simple reason that it tends to reduce profitability below their acceptable thresholds.

Investors should seek to understand each other's businesses and should have a common vision of how they will work together to achieve a mutually successful outcome to the project

14.0 Recommendation:

1. Government should secure and adopt a committed and wide ranging regulation to boost competition.
2. Cross-border co-operation between regulators should be strengthened.

3. Energy reformed is canvassed in order to meet up with an ever evolving socio-economic dynamism to fix the value chain problem.
4. Government should embrace an efficient and targeted enforcement rules covering antitrust, state aid and merger control.
5. There should be consistent screening and removal of barrier to entry.
6. Nigeria should draw a lesson from the Thailand experience, whereby sound Socioeconomic and political matrix were articulated to achieve energy security, and ultimately becoming a developed country in a swift.
7. In consonance with the sociological school of thought, there should be a general reorientation of our social and moral values as a nation, whereby the culture of nation building above personal & selfish aggrandizement shall be inculcated.
8. A road map from the point of awarding of license for exploration to the final production should be clear - cut and understood by all stakeholders.