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EVALUATING THE LEGAL FRAMEWORK FOR THE TRANSFER AND ACQUISITION OF TECHNOLOGY IN THE OIL AND GAS SECTOR IN NIGERIA

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Abstract

Since oil was discovered in Nigeria with the help of foreign technology, the foreign-owned oil companies have continued to dominate the industry with their technological capacity and superiority. To prolong the economic benefits they derive from the industry, these companies keep Nigeria in a state of perpetual technological dependence so that their technical skills and services will always be sought by the country.[1] With this technique, it will be almost impossible to dispense with their services as the country's economy rests majorly on the oil sector. However, the grievance of Nigerians, especially in the Niger Delta region, has resulted in the adoption of some government policies which are targeted at reducing significantly the heavy dependence on foreign-owned technology in the oil sector. It is against this backdrop that this article was aimed at evaluating the legal framework on the transfer and acquisition of technology in the Nigerian oil sector. It found that laws exist to facilitate the acquisition of technology and development of local content in the Nigerian oil sector. It concluded however that these laws are poorly enforced as the sector has continued to depend on foreign-owned technology in exploiting and exploring its natural resources. It recommended among other things that National Assembly should assemble the extant laws into one comprehensive law for easy accessibility and that the institutions should be more proactive in developing local technologies in the sector.

Keywords: Technology Transfer, Law, Government Policies, Local Content, Nigerian Oil Sector

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[1] A N Adedeji and others, 'The Role of Local Content Policy in Local Value Creation in Nigeria's Oil Industry: A Structural Equation Modelling (SEM) Approach' [2016] (49) *Journal of Resources Policy*: 61–73.

1. Introduction

The idea of technology transfer as a legal response to the growing rate of technological dependence is not only a national phenomenon. It is a concept that has global recognition and application as it plays an essential role in industrial and economic development of a country.[2] Technology transfer is not relevant to the oil sector alone; it is a mechanism that can also be employed in other sectors or industries to facilitate sustainable development within it.[3] However, as a major source of Nigerian economy, the relevance of technology acquisition in the Nigerian oil sector cannot be overemphasized.[4] Thus, in recognition of the global significance of technology transfer and acquisition as a veritable tool for equitable distribution of technological resources between developed and developing countries, several legal instruments have been developed locally and internationally to facilitate this movement. However, a critical evaluation of this legal framework reveals its ineffectiveness in addressing the heavy dependence on foreign-owned technology in the Nigerian oil sector. The consequence of this ineffectiveness is the continuous dependence on foreign-owned technologies in the utilization of our petroleum resources.

2.0 Conceptual Framework

2.1 Technology Transfer and Acquisition

To acquire something means to come into possession of that thing or to own it and make it one's own. Technology Acquisition therefore is 'the process of acquiring a new technology, new product, process or service; by efforts of an individual or an enterprise or any other macro entity.' For the purpose of this paper, technology transfer and technology acquisition are used interchangeably and also mean the same thing as technology transfer and acquisition. It involves the processes, steps, procedures and rules through which new technologies are transferred by developed countries and acquired by the developing countries where they are needed for the development and advancement of the sector of the receiving economy.

2.1.1 Local Content

According to Dike, it is 'the added value brought to a host nation (national, regional and local areas in that country, including communities) through the activities of the oil and gas industry.'[5] In the same vein, the Nigerian Oil and Gas Industry Content Development Act 2010 has also defined it to mean 'the quantum of composite value added or created in the Nigerian economy by a systematic development of capacity and capabilities through the deliberate utilisation of Nigerian human and material resources and services in the Nigerian oil and gas industry.'[6]

2.1.3 Oil Sector

The oil sector is also known as the petroleum sector or petroleum industry. This sector includes the totality of the processes involved in the exploration, extraction, refining, transporting, and marketing of petroleum products otherwise known as the upstream, midstream and downstream sectors.

3. National Legal Framework for the Transfer and Acquisition of Technology in the Oil Sector

3.1 Nigerian Oil and Gas Industry Content Development Act 2010

The Nigerian Oil and Gas Industry Content Development Act 2010 (Local Content Act 2010) is the major laws that comes to mind when the issue of technology transfer and acquisition as well as industrial development in the Nigeria oil and gas industry is raised. This is because of the roles it plays in boosting the acquisition of modern technologies and development of local contents to

[2] K Saggi, 'International Technology Transfer: National Policies, International Negotiations, and Multilateral Disciplines' (A Report for Commonwealth Secretariat, London 2013).

[3] *Ibid.*

[4] Y O Akinwale, 'Indigenous Technology and Innovation Capability Building in Nigerian Upstream Oil and Gas Subsector: The Academia Perspective' [2016] (6)(2) *Advances in Management and Applied Economics:*49-70.

[5] S C Dike, 'Oil and Gas Industry Contents Development Act 2010 (Local Content) Law and Challenges in Nigeria' [2020] (65) *Journal of Resources Development and Management*:28-37.

[6] Nigerian Oil and Gas Industry Content Development Act 2010, s.106.

facilitate sustainable development in the industry. The essence of the Local Content Act 2010, as stated in its long title, is 'to provide for the development of Nigerian content in the Nigerian oil and gas industry; to provide for the Nigerian content plan, supervision, coordination, monitoring and implementation of Nigerian content; and for related matters.'[7]

In addition to establishing the Nigerian Content Monitoring Board (NCMB) and vesting it with the responsibility of providing guidelines, monitoring, coordinating and implementing the provisions of the Act.[8] The Act further provides for exclusive consideration to be given to Nigerian companies[9] for all oil and gas projects in inland and swamp water areas, subject to proof of acquisition or lease of the equipment to be utilised during the project, verifiable by satisfactory evidence of such acquisition or lease.[10] Thus, under the Local Content Act 2010, there is no more the element of sole consideration as a factor in determining the company to be awarded specific contracts to execute a project in the industry. The reason for this is not far-fetched. Thus, an indigenous company that has shown capacity to execute a given project will not be disqualified or neglected in the bidding process provided its quoted value is not 10% greater than the lowest bid.[11] The Act also goes further to provide for operators and project promoters as a way of giving priority and credence to bids which contain the highest level of Nigerian content where of cause the bids are within the acceptable range or percentage.[12]

The Local Content Act 2010 therefore provide the policies and project strategies through which the oil and gas industry in Nigeria can attain the required level development through the acquisition of modern technologies and support of indigenous companies. Due to the relevance of the Act, compliance with the Act is mandator y for the award of all necessary licenses and permits in the industry.[13]

3.1.1 Nigerian Petroleum Industry Act 2021

The Nigerian Petroleum Industry Act 2021 (NPIA) was enacted on 16th August 2021 as an amendment to the former Petroleum Act.[14] The essence of this new law is "to have a law that is balanced, transparent, fair, and competitive enough to attract foreign investment while promoting the involvement of indigenous investors in the industry."[15] One laudable objective of the NPIA is to "deepen local content practice in Nigerian oil and gas industry."[16] Thus, it is the major law that regulates the oil sector in Nigeria and the first law to resort to with respect to specific provisions on what activities, projects and operations are permissible in the industry.

For example, under the PIA, the entire ownership and control of all petroleum in Nigeria is vested in the State.[17] This is a way of controlling who engages in the industry and prevent the invasion of multinational corporations. In this respect, the system of leases and licenses are institutionalised. Accordingly, the Minister is empowered to grant licenses and leases to operators in the oil sector. This provision was also contained in the former Petroleum Act which gave the Minister the discretionary power in granting such license or leases. However, under the NPIA, such ministerial consent can only be granted upon the recommendation of the Upstream Regulatory Commission.[18] Not only that, such grant must be made upon strict compliance with the processes under the NPIA.[19] This new development is commendable as it will help in facilitating local content development and reduce

[7] Nigerian Oil and Gas Industry Content Development Act 2010, preamble.
[8] *Ibid.,* s.4.
[9] *Ibid.,* s.109.
[10] *Ibid.*, s..3(2).
[11] LCA (n. 7), s.14.
[12] *Ibid.*, s.15.
[13] *Ibid.*, s.3(3).
[14] Cap P10 LFN 2004.
[15] A Ajayi, 'Is The Nigerian Petroleum Industry Act 2021 A Game Changer?' <https://www.mondaq.com/nigeria/oil-gas-electricity/1113090/is-the-nigerian-petroleum-industry-act-2021-a-game-changer> accessed 10 November 2021.
[16] Nigerian Petroleum Industry Act 2021 (NPIA), s.2(e).
[17] *Ibid.*, s.1.
[18] NPIA, (n 16), s.3(1)(g).
[19] *Ibid.*

corruption and bureaucratic technicalities as well as the unfettered discretion of the Minister in granting licenses and leases to local and foreign operators.

Furthermore, as a way of encouraging technological growth and sustainable development in the Nigerian oil sector, the NPIA empowers the Minister to "promote an enabling environment for investment in the Nigerian petroleum industry"[20] so as to build local capacity and reduce the dependence on foreign-owned corporations.

3.1.2 Petroleum (Drilling and Production) Regulation 1969

The Regulations mandate the licensee of an OPL, within twelve (12) months of the grant of his license, and the lessee of an OML, upon the grant of his lease, to submit for the Minister's approval, a detailed programme for the recruitment and training of Nigerians.[21] The programme shall provide for the training of Nigerians in all phases of petroleum operations whether the phases are handled directly by the lessee or through agents and contractors.[22] Any scholarship schemes prepared, and any scholarships proposed to be awarded, by the licensee or lessee (whether or not related to the operations of the licensee or lessee or to the oil industry generally) shall be submitted for the approval of the Minister.[23] Once any such programme or scholarship scheme has been approved by the Minister, it may not be varied without his permission.[24] A report on the execution of such programme and the progress of Nigerianisation shall be submitted by the licensee or lessee at or about the end of June and December in every calendar year.[25] Indeed, the point must be emphasised that failure to comply with any of the above provisions constitutes a valid ground for the revocation of the license or lease.[26]

3.1.3 National Office for Technology Acquisition Promotion Act Cap N62 LFN 2004

The National Office for Technology Acquisition Promotion Act is the primary legislation that governs the Transfer of Technology in Nigeria. The Act established the National Office for Technology Acquisition and Promotion (NOTAP).[27] The scope of the NOTAP Act is not limited to any sector or industry – it covers every sector including the oil sector. The principal function of NOTAP pursuant to the provisions of the Act is to monitor the transfer of foreign technology to Nigeria. The Act makes it mandatory to register all contracts or agreements for the transfer of foreign technology entered into by any person in Nigeria with NOTAP as well as registration of every contract or agreement entered into by any person in Nigeria with another person outside Nigeria within 60 days from the execution or conclusion of the contract.

The NOTAP Act provides that every contract is registrable if its purpose or intent is, in the opinion of NOTAP, wholly or partially in connection with any of the following purpose: the use of trademarks; the right to use patented inventions; the supply of technical expertise in the form of the preparation of plans, diagrams, operating manuals or any other form of technical assistance of any description whatsoever; the supply of basic or detailed engineering; the supply of machinery and plant; and the provision of operating staff or managerial assistance and the training of personnel.[28]

The registration of technology transfer agreement is an essential part of the transfer and acquisition process and this is covered under the NOTAP Act. The law obligates the parties to the technology transfer agreement – the transferor and transferee to register the agreement. This registration is expected to be done within 60 days of execution or conclusion of the agreement. And when the agreement is finally accepted by NOTAP (either in its original form or in an amended form) a

[20] *Ibid*., s.3(1)(e).
[21] Petroleum (Drilling and Production) Regulation 1969, para.26(1).
[22] *Ibid*., para.26(2).
[23] *Ibid*., para.27.
[24] *Ibid*, para.28.
[25] *Ibid*., para.29
[26] *FGN v Zebra Energy* (2002)18 NWLR (pt. 798) 162.
[27] National Office for Technology Acquisition Promotion Act Cap N117 LFN 2004, s.1.
[28] *Ibid*., s. 4(d)(i)-(e).

"registration fee" becomes payable to NOTAP after which a certificate approving the transfer will be issued to the applicants.

However, failure to register a technology transfer agreement does not render the contract void, only that repatriation of fees profits, royalties through the Central Bank of Nigeria is disallowed unless a certificate of registration accompanies the application to repatriate in respect of such contract.[29] In the case of *Stambic ITBC v FRCN*, the court held that the non-registration of a technology transfer agreement under the NOTAP Act neither renders such agreement invalid nor unenforceable.

3.1.4 Petroleum Development Fund Act Cap P15 LFN 2004

The Act was enacted for purpose of establishing the Petroleum Technology Development Fund (PTDF) for the purposes of training and education of Nigerians in the petroleum industry.[30] Section 1 established the PTDF and as a result, the money in the PTDF together with interest (if any) payable in respect thereof shall be applied for the purpose of training Nigerians to qualify as graduates, professionals, technicians and craftsmen, in the fields of engineering, geology, science and management in the petroleum industry in Nigeria or abroad through scholarships and bursaries.[31]

3.2 International Legal Framework on the Transfer and Acquisition of Technology

3.2.1 International Agreement on Trade-Related Aspects of Intellectual Property Rights 1995

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) is an international legal agreement between all the member nations of the World Trade Organization (WTO). The TRIPS agreement introduced intellectual property law into the multilateral trading system for the first time and remains the most comprehensive multilateral agreement on intellectual property to date. The TRIPS agreement also introduced intellectual property law into the multilateral trading system for the first time and remains the most comprehensive multilateral agreement on intellectual property to date. It has therefore been argued that the TRIPS standard of requiring all countries to create strict intellectual property systems will be detrimental to poorer countries' development.[32] It has been argued that it is, prima facie, in the strategic interest of most if not all underdeveloped nations to use the flexibility available in TRIPS to legislate the weakest IP laws possible.[33]

3.2.2 International Code of Conduct on the Transfer of Technology 1977

This Code of Conduct was established by the United Nations Conference on Trade and Development (UNCTAD) as an intergovernmental group on the Transfer of Technology. A major objective of the Code is the establishment of general and equitable standards on which to base the relationships among parties to transfer technology transactions and governments concerned, having regard to their legitimate interests and the special needs of developing countries.[34]

The Code of Conduct is universally applicable in scope and is addressed to all parties to transfer of technology transactions (from developed as well as from developing countries) and to all countries and groups of countries, irrespective of their economic and political systems and their levels of development.[35] The establishment of an international code of conduct on the transfer of technology responds, primarily, to the aspirations formulated by developing countries for an improved access to the advances and developments in science and technology in order to improve their standards of living.

3.2.3 Lima Declaration 2013

[29] National Office on the Technology and Acquisition Promotion Act Cap N117, s.7; *Stanbic IBTC v Financial Reporting Council of Nigeria and Anor* (2015)

[30] Petroleum Development Fund Act (PDF Act) Cap P15 LFN 2004, preamble.

[31] *Ibid*., s.2.

[32] J F Morin and R Gold, 'An Integrated Model of Legal Transplantation: The Diffusion of Intellectual Property Law in Developing Countries' [2014] (58) (4) *International Studies Quarterly*:781–792.

[33] *Ibid*.

[34] International Code of Conduct on the Transfer of Technology 1977 (The Code), chapter 2.

[35] *Ibid*., para.1.5.

The Declaration was made in 2013 to eradicate poverty through 'strong, inclusive, sustainable and resilient economic and industrial growth, and the effective integration of the economic, social and environmental dimensions of sustainable development.'[36] Principle 7 declares that while integrating in a balanced way all three dimensions of sustainable development — economic, social and environmental we believe that the effective measures towards inclusive and sustainable industrial development should encompass enhancing productive capacities in a way that supports the structural transformation of the economy; encourages economic growth and the creation of decent jobs; enhances productivity and development, transfer and absorption of technology on mutually agreed terms, infrastructure and technological innovation; advances trade and development, particularly in the small and medium-sized enterprise sector, micro-industries and other new forms of community-based entities; promotes the sustainable use, management and protection of natural resources and the ecosystem services they provide; and supports related research and development.

3.2.4 Abu Dhabi Declaration 2019

The Declaration recognizes the need for effective international cooperation for inclusive and sustainable industrial development, including South-South and triangular cooperation, through the exchange of knowledge, best practices and capacity building and the transfer of technology on mutually agreed terms, to respond to the intensifying challenges of poverty and hunger eradication, as well as peace and security, climate change, pollution and environmental degradation, growing inequality and emerging trends such as the Fourth Industrial Revolution.[37]

Similarly, principle 11 states that the new technologies associated with the Fourth Industrial Revolution, with both transformative and disruptive potential, offer great opportunities to advance inclusive economic growth, reduce inequalities and contribute to sustainable development, resilience and human well-being, to address climate change and safeguard the environment in the framework of a circular economy as one of the means to achieve sustainable development, while also bringing with it challenges such as, inter alia, the widening of the technology gap among countries, job losses and threats to industrial safety and security.[38]

3.2.5 United Nations Agenda 21 and 2030

Agenda 2030, also known as the Sustainable Development Goals (SDGs), was a set of goals decided upon at the UN Sustainable Development Summit in 2015. It takes all of the goals set by Agenda 21 and re-asserts them as the basis for sustainable development. Adding onto those goals from the original Rio document, a total of 17 goals have been agreed on, revolving around the same concepts of Agenda 21; people, planet, prosperity, peace, and partnership. Building on the principle of 'leaving no one behind,' the new Agenda emphasizes a holistic approach to achieving sustainable development for all. For example, Goal 9 is to 'build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation'[39] which can be effectively achieved through technology transfer and acquisition.

3.3 Legal Framework on Technology Transfer and Acquisition in Brazil

Law No. 9.478

This is a Brazilian law established on 6th October 1997 which deals with the national energy policy, activities related to the oil and gas monopoly.[40] It creates the National Council for the Energy Policy and the National Petroleum Agency and makes other provisions.[41] Under this law, 'the Federal Government of Brazil owns the petroleum, natural gas and other fluid hydrocarbon accumulations existing in the national territory, which includes the onshore area, the territorial waters, the continental

[36] Lima Declaration 2013, principle 1.
[37] Abu Dhabi Declaration 2019, principle 10.
[38] *Ibid*., principle 11.
[39] United Nations, 'Goal 9: Industry, Innovation and Infrastructure' <www.un.org/development/desa/disabilities/envision2030-goal9.html> accessed 7 November 2021.
[40] Law No. 9.478, preamble
[41] *Ibid.*

shelf, and the exclusive economic zone.'[42] It also makes specific provisions on the principles and objectives of national energy policy. Part of such principle is the preservation of the national interest, promoting free competition, promoting the growth of the country's competitiveness in the international market, utilizing alternative energy sources through the economic use of available resources and applicable technologies.[43]

3.3.1 The Gas Act (Law 11909)

The Gas Act was enacted in 2010 as Law 11909 to deal with the activities related to the transport of natural gas, dealt with in Article 177 of the Federal Constitution, as well as on the natural gas treatment, processing, storage, liquefaction, regasification and commercialization activities. This act also changes Law 9478 of August 6, 1997, and makes other provisions. The Decree regulates Chapters I through IV and VIII of the Law.

3.3.2 Technological Innovation Act, Law No. 10.973

The Brazilian Congress enacted the Technological Innovation Act, Law No. 10.973/04 on December 2, 2004, which creates incentives for scientific and technological innovation in a productive environment. The new law, seeking Brazil's technological autonomy, establishes special measures for technological development. Among the measures contemplated in the law are support for the establishment of strategic alliances and the development of cooperation projects involving Brazilian companies. The law regulates the importation of foreign products or services as well as the taxes to be imposed on them. The essence of this law is to improve technological advancement and innovation in Brazil in every sector of the economy, including the oil sector.

3.3.3 Brazilian Industrial Property Law – Law No. 9.279

This law regulates rights and obligations relating to industrial property. By virtue of article 2 of this Law, the protection of rights relating to industrial property, taking into account the interests of society and the technological and economic development of the country, is effected by means of: the grant of patents of invention and utility model patents, the grant of industrial design registrations, the grant of trademark registrations, the repression of false geographical indications and the repression of unfair competition.

3.4 Legal Framework on Technology Transfer and Acquisition in Norway

3.4.1 Petroleum Act 1966 No. 72

This is one of the major laws that regulates the oil sector in Norway. By virtue of section 1(1) of the Law, the Norwegian State has the proprietary right to subsea petroleum deposits and the exclusive right to resource management. Resource management is executed by the King in accordance with the provisions of this Act and decisions made by the Storting (Parliament).[44] Resource management of petroleum resources shall be carried out in a long-term perspective for the benefit of the Norwegian society as a whole. In this regard the resource management shall provide revenues to the country and shall contribute to ensuring welfare, employment and an improved environment, as well as to the strengthening of Norwegian trade and industry and industrial development, and at the same time take due regard to regional and local policy considerations and other activities.[45] In relation to license, the Act clearly states that None other than the State may conduct petroleum activities without the licences, approvals and consents required pursuant to this Act.

3.5 Institutional Framework on Technology Transfer and Acquisition in the Oil Sector

It is quite incomplete to evaluate the legal framework in a given subject matter without appraising briefly their corresponding institutional framework. This is due to the indispensable roles that institutions and regulatory agencies play in facilitating the enforcement and implementation of the law to the highest maximum.

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[42] *Ibid*., chapter III, s.1, art.3.; art 177 of the Federal Constitution of Brazil 1988.
[43] Law No. 9.478, chapter I, art.1.
[44] Petroleum Act 1966 (Norwegian PA), No. 72, s.1(2).
[45] PA (n 44).

At the national level, different institutions exist to aid the transfer and acquisition of technology in the oil sector. Some of these institutions include; the judiciary, Niger Delta Development Commission (NDDC), Nigerian National Petroleum Corporation (NNPC), Federal Ministry of Petroleum Resources, National Office for Technology Acquisition Promotion Commission, Nigerian Content Development and Monitoring Board, Nigerian Investment Promotion Commission, National Information Technology Development Agency, Federal Ministry of Science and Technology. At the international level, we have the United Nations, World Trade Organisation, Organisation for Petroleum Exporting Countries, United Nations Conference on Trade and Development, United Nations Industrial Development Organization, and others.

4. Issues facing the Laws on the Transfer and Acquisition of Technology in the Oil Sector

Despite legal and institutional frameworks developed for the promotion of technology acquisition in the Nigerian oil sector, there are still some issue affecting technological development in the country. Some of these issues include; weak enforcement of the law, multiplicity of regulatory laws and institutions with overlapping principles and powers, lack of strategic criteria is measuring and determining local content, poor implementation and ratification of international law, corruption, the Nigerian attitude of foreign dependence among others.[46]

4.1 Weak Enforcement of the Laws

One of the general problems confronting the Nigerian legal system is poor or weak compliance and enforcement of the law. The law does not only thrive on its existence but also on its effective enforcement and implementations. Without active and effective enforcement institutions, the law, no matter how good, is only but a toothless bulldog. It can only bark but cannot bite. Although diverse institutional measures have been established to ensure the enforcement of the law on technology transfer and acquisition in the oil sector, the poor structure of these institutions constitute a barrier to the enforcement of laws protecting consumers in the telecommunications industry.

For example, the implementation of the provision of Local Content Act rests of the Nigerian Content Development Board. Although the board has achieved some success in implementing the provisions of the Act, it is not enough taking into account the modern expectations of the board. Part of this failure is due to poor funding of the board and the lack qualified personnel who are skilled and knowledge in the field. There is also the lack of holistic criteria in measuring the Nigerian local content which makes it difficult for the board to implement the provisions of the Local Content Act to the maximum level.[47]

4.1.2 Multiplicity of Laws and Regulatory Agencies

One of the issues confronting technology acquisition in the Nigerian oil and gas industry is the multiplicity of laws. From the legal framework, it is apparent that there are robust and manifold sets of laws and regulatory regimes on government responses on oil and gas technological development in the Nigerian oil sector. This can be seen the previous chapter where many laws and institutions relevant to the subject matter of discourse were clearly examined. The legal documents establish overlapping rules and principles which make it clumsy and technical in relation to the interpretation of the laws as well as the applicable ones. Furthermore, the laws regulating technology transfer and acquisition in the industry are enshrined in different pieces of legislation; thereby resulting in the conflict of laws and creates confusion and ambiguity in interpreting the applicable law. This situation confuses the average Nigerians as to whether their contents are qualified for adoption by the government. The confusion could also discourage foreign oil investors who may feel technically unsafe in investing the country's oil industry.

4.1.3 Lack of strategic Criteria for Measuring Local Content

[46] O I Akpanika, 'Technology Transfer and the Challenges of Local Content Development in the Nigerian Oil Industry' [2012] (11)(2) *Global Journal of Engineering Research*:123-131.
[47] Dike (n 5).

The Local Contents Act has identified the principles of first consideration and exclusive consideration in giving priority to Nigerian content over foreign contents in the oil sector.[48] While this approach helps to enhance local capacities in achieving sustainable development in the industry, there are no strategic criteria for measuring local content.[49] This is essential because with the help of these criteria, the Local Content Act rests of the Nigerian Content Development Board will be able to identify the gap that exists in the local content and the extent of engagement of international oil companies in filling such technological gap.

4.1.4 Non-domestication of International Treaties and Conventions

The non-domestication of international treaties and conventions is another challenge facing the unequal distribution, transfer and acquisition of technology in the world, especially in developing countries with a dualist system of law. Under international level, the law recognizes the gap that exists between developed and developing countries in relation to technological and innovative development and proclaims equal distribution and transfer of technology so as the solve the problems of mankind – poverty, inequality, injustice and underdevelopment.

However, as far as many countries are concerned, this provision remains unenforceable and inapplicable until it has been domesticated by the relevant authority. In Nigeria, for example, by virtue of section 12 of the CFRN, no treaty or convention shall have the force of law in Nigeria except it has been duly domesticated and ratified by the National Assembly. This implies that no matter how beneficial the treaty or convention is to the country or its citizenry, unless it is domesticated and ratified by the authorised institution, it cannot form a part of the enforceable law in Nigeria;[50] therefore, all the provisions will be mere declarations. This problem runs through most dualist states and constitutes a significant setback in the achievement of sustainable development in the oil sector.

4.1.5 Fear of Investment Withdrawal from Multinational Oil Corporations

Since crude oil was discovered in Nigeria, there has been a significant paradigm shift from agriculture to oil as the major source of the government revenue and economic development. Also, since the commencement of operations in the various sectors of the petroleum industry, the activities of the multinational corporations have been dominant even until today.[51] So, there is a continued reliance and dependence on international capacity for the booming of the industry. For this reason, the Nigerian government has continued to live in fear of losing these foreign opportunities in the name of developing local contents. It is reasoned that the withdrawal of foreign investors in the oil sector could cripple the Nigerian economy; so, the government continue to pet these international oil companies to the detriment of the nation's ability to effectively and independently harness its petroleum resources. In practice, where these international corporations breach their obligations under a given agreement on the acquisition of technology, no serious legal step is usually taken against them. Instead of relying on strict compliance with the law, the institution in question would rather issue notice of non-compliance and nothing more. In rare cases, the defaulting companies with pay insignificant amounts as compensation and continue to use their technical skills to drain the oil sector of the host country.

4.1.6 The Soft Law Nature of International Law on Technology Transfer

Another problem facing technology transfer and acquisition at the international level is the soft law nature of international law, particularly the ones governing the equitable distribution and acquisition of technology and technical skills among states in the international community. International Code of Conduct on the Transfer of Technology 1977, Lima Declaration 2013, Abu Dhabi Declaration 2019, United Nations Agenda 21 and 2030 are the major instruments at the international level that contain provisions on the technology transfer. But one common problem facing these laws is that they are soft law because they do not have the force of law that 'hard law' have. They are therefore mere

[48] Dike (n 5).
[49] *Ibid.*
[50] *Abacha v Fawehinmi* (2002) 3 LRC 296.
[51] T Obuaya, 'Local Content Implementation in Nigeria: A Road Map', (Being a Paper Presented at the Nigerian Oil and Gas Conference in Abuja 2005).

declaration which does not have any legal consequences for non-compliance. Due to this problem, the developing countries have continued to suffer technological backwardness and continued dependence on the developed. Interestingly, these developed countries, instead of transferring modern technologies to these countries, they see the developing countries are a dumpsite for obsolete technologies.

5. Conclusion

Technology transfer and acquisition has become a modern way of bridging the wide gap in technology between developing countries and industrialized countries. Thus, the transfer of technology and development of local content are essential to achieving sustainable development in the Nigerian oil sector. However, there are issues facing the development of the Nigerian oil sector through infrastructural development and technology transfer. Such issues include; corruption, poor enforcement, weak institution, lack of effective local training in petroleum technology, multiplicity or legal regulatory frameworks, weak international law, and continued dependency on the technological capacity of international oil companies. These challenges have adverse effects on the oil sector, the public, Nigeria in Nigeria as the country still relies on the sector for economic development. Thus, it is hereby submitted that the problem of poor infrastructural development in the Nigerian oil sector goes beyond laws, policies and institutions; adequate enforcement and compliance with the law, coupled with locally and internationally concerted efforts of all other sectors, will help to silence our development problems and increase our comparative advantage in the global oil industry.

6. Recommendations

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

i. The National Assembly should amend the Local Content Act and establish specific criteria for the determination of local contents. This will enhance infrastructural development in the oil sector through local efforts.

ii. The education and training of Nigerians in the field of petroleum technology should be given proper attention and monitoring. More people across the country, especially in the Niger Delta region, should be trained annually in the use and development of modern technologies devoid of bribery, corruption, tribalism, nepotism and political influence of favouritism.

iii. The National Assembly should enact a comprehensive law that embraces all the extant laws in order to avoid multiplicity of law in the oil sector. Also, to avoid overlapping of regulatory functions, the National Assembly should make one institution responsible for local content and technological development in the oil sector.

iv. Like Norway and Brazil, Nigeria should work in developing its own oil market prospects without relying on international oil cartels, like the OPEC.