African oil producing countries and the global oil market in the 21st century

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Abstract

The discovery of petroleum oil on the Africa continent for the past six decades has seen to high intensity of extraction activities in African oil producing countries; where much of their crude petroleum oil were exported and the proceeds served as major foreign revenue earners for them. Even with the building of refineries and petroleum-related industries by some countries, they found themselves as major importers of refined oil and petroleum products because of their sub-optimal performances. Overdependence on imported refined oil and petroleum products by these African countries portend great dangers for their domestic economies because when the home countries of foreign refiners/processors encounters social, political and economic problems that inhibits refining/processing activities, it in turn generates scarcity of the product in the domestic environments of the African countries. The inability of refineries/factories of African countries to meet up with the continent’s local consumption needs and of generating more employment and empowerment for citizens informs the motivation for this study. The study is a qualitative one where data was generated through secondary sources such as academic journals, bulletins, textbooks, scholarly papers, and internet materials.

Keywords: Crude, oil, petroleum, refining, export, revenue

Introduction

The discovery of petroleum oil in third world countries in the last six decades has turned their economies around propelling some of them into global prominence in the areas of politics and economy. It has specifically catapulted African oil producing countries into assertive positions thereby serving as voices for other voiceless African countries that are economically weak. The oil induced affluent African countries used their economic might to stand and speak for other African countries at international fora (forums) and engagements. Oil producing African countries like Nigeria, Libya, Angola and Algeria are among the leading buoyant economies of the continent with noticeable global presence. Empirical scientific projection has it that African oil producing countries can turn their economies into global haven for genuine foreign direct investment by relying heavily on exclusive refining of crude oil and processing of crude oil into massive output of petroleum products. These indigenous refining and processing activities will not only provide employment opportunities for their teeming unemployed youths; but it will also economically empower the youths through the refining value-chain. In addition, the proceeds from these large-scale local refining and processing activities can efficiently be utilized in making their economies manufacture-driven. This will seriously improve the ranking of their economies in the world-ranking index (OPEC, 2018; NPP, 2017).

The moribund refineries and petro-chemical industries of these African oil producing countries; due largely to leadership ineptitude, turned them into major importers and consumers of refined oil and petroleum products from foreign countries. This creates a paradox of want (poverty) amidst plenty for majority of their citizens. While their ill-equipped political leaderships feed fat on illicit underhand contractual deals from the sale of crude oil and from the importation of refined oil and petroleum products. This deliberate governmental failures to convert the refining section of their petroleum industries, into employment generating and economic empowerment subsector for their citizens, has created serious economic and socio-political disequilibrium for their domestic economies; and by extension exacerbated the already beleaguered national security problems of their domestic environments.
Therefore, it is this failure on the part of the political leaders of these African oil producing countries to turn the refining sections of their petroleum industry into massive employment generation and wealth creation for their citizens and the general development of their nations that form the motivation for the study ((LCCI, 2016; Saleh, 2019; OPEC, 2017/18) [11, 22].

Aim and Objectives
The major aim of the study is to assess the role of African oil producing countries in the global oil market in the 21st Century. The specific objectives are:
1. To determine the extent to which African oil producing countries have exploited and benefited from the production and sale of their crude oil.
2. To assess the level of crude oil production of individual African oil producing countries.
3. To compare crude oil production, crude oil exports, crude oil reserve, output of petroleum products and oil demands of African countries with other Regions of the world.

Methodology
The study is a qualitative one where secondary sources of data were mainly utilized in generating data for the study. The research, which is an assessment of the role of African oil producing countries, is essentially descriptive and explanatory.

Sources of Data
Data for the study was generated through secondary sources such as document studies. Relevant documents on African oil producing countries were scrutinized. Documents scrutinized include official documents such as annual reports/bulletins, internal memoranda and policy manuals. Other documents included published materials such as textbooks, academic journals, scholarly papers, and internet materials.

Comparative Administration Theory
The theory of comparative administration and government; was first popularized by Herbert Simon (1957) [20] who came up with normative approach. He also came up with empirical approach aimed at making comparative analysis of administrations towards establishing whether they are performing efficiently or not. If otherwise, the areas of convergence and divergence among them shall be sorted out and appropriate strategies adopted towards making them perform efficiently. Other exponents and advocates of comparative government and administration (politics) theory include Gabriel Almond (1988) [3], Betarlanfy (1969) [5], Billy J. Dudley, (1973, 1982) and Christopher Kolade (2000) [10]. These scholars placed emphasis on the political and administrative institutions, governance style and the rate of development. The comparison could either be inter-state (i.e. comparing the governance style or system between one country or the other), or intra-state (i.e. the comparative study of one regime/administration and the other within the same country). The explanations of Simon, Almond, Betarlanfy Dudley and Kolade are very useful for this study since its main focus is the analysis and comparison of African Oil Producing Countries’ crude oil production, reserves, refining, output of petroleum products and exports in the 21st Century.

Ricardo and Rodrick are other proponents of the comparative theory who came up with the theory of comparative advantage hinged heavily on capitalist ideals to explain international trade and exports among nation states and international businesses. This theory according to them sees trade and export as two country, two products and perfect mobility of factors. Their explanation seems to narrow down trade and exports to activities between two countries, two products and mobility of factors. This is incomplete because the exploration, prospecting (extraction), refining and marketing of crude oil as well as refined products are carried out both on bilateral and multilateral levels (Ricardo and Rodrick, 2005) [19]. The explanation of Ricardo et-al on theory of comparative advantage above falls short of the parameters and the growing inevitability of multilateral trade in international economic and business engagements of the 21st Century. Furthermore, their explanation could not hold, because this study is multi-pronged and considers how oil producing African countries explore, extract, refined and sell both their crude oil and petroleum products to different countries/regions of the world in the global oil market. The theory of comparative advantage will be of great utility if it is broadened to cover all countries, all products and multiple factors in the global oil market.

Crude Oil Production by African Oil Producing Countries, 2007-2019
The ever-increasing rate of oil exploration and prospecting in Africa, also witness the corresponding increase in the number countries in the continent joining the elite league of oil producing countries. It also witnessed continuous increases in the level and quantity of crude oil that is being produced by the continent. The total crude petroleum oil produced by African countries between 2007 and 2019 stands at 95,601.5b/ycr, which represents 10% of the world crude oil production for the same period which stands at 960,949.6b/ycr. The performances of African countries in terms of crude oil production between 2007 and 2019 are as follows: Algeria 15,336.4b/ycr, Angola 22,223b/ycr, Congo 3,676.7b/ycr, Egypt 7,372.6b/ycr, Equatorial Guinea 3,069.0b/ycr, Gabon 2,690.9h/ycr, Libya b/d, 9,666.0b/ycr, Nigeria 22,594.8b/ycr, Sudans 3,120.8b/ycr and Others 5,632.6b/ycr (OPEC, 2017/18; LCCI, 2016) [11]. From the above, Nigeria is the continental leader in this regard with 22,594.8b/ycr representing 24% of the cumulative crude oil production of Africa for the period covered by this study. However, Nigeria’s leadership role in this regard is increasingly being challenged by Angola, a new comer in the global crude oil business. Angola with 22,223b/ycr representing 23% appears unstoppable in displacing Nigeria from the number one position. This is as presented in Figure 1 below:
Summary of the cumulative crude oil production of African countries indicated a total of 95,601.5b/cyr with a total cumulative annual average of 73,539.0b/cyr. The total individual country average stands at 7,353.9b/cyr and the total individual annual country average stands at 9,565.2b/cyr. As stated earlier above, Nigeria’s leadership position in terms of crude oil production is greatly under threat with the emerging upsurge in crude oil production by Angola with 22,223.8b/cyr. With a slight difference of 371.0b/cyr (1%) between Nigeria and Angola; the latter’s march towards displacing the former from the continental leadership position appears unstoppable (NPP, 2017; Saleh, 2020a).

Summary of crude oil production of African countries compared with other regions of the world put Africa in the 6th position with 95,601.5b/cyr representing 11% of the world’s total which stands at 960,949.6b/cyr for the period 2007 and 2019. The world’s leading crude oil producing region is the Middle East with a cumulative total of 345,909.2b/cyr representing 36%. Ironically, the North American bloc, which is the greatest buyer of Africa’s crude oil, outperformed the African continent in this regard with cumulative total crude oil production of 138,821.8b/cyr representing 15% of the total world crude oil production for the period of the study. The rest are Latin America 126,629.1b/cyr (14%), Asia & Pacific 96,991b/cyr (11%), Western Europe 37,958.7b/cyr (4%), and Eastern Europe 65,171.5b/cyr (9%), (OPEC, 2017/2018; Ejiba et-al, 2016) [8].

**Fig 1:** Cumulative Crude Oil Production of African Oil Producing Countries, 2007-2019 (b/cyr & %)

Crude Oil Exports of African Oil Producing Countries, 2007-2019

There is no gain saying the fact that bulk of the crude oil produced on the African continent are being exported to the West (North America and Western Europe) and Asia (principally China). The West in particular who monopolizes the exploration and extraction of Africa’s crude oil are also the determinants of crude oil prices in spite of the existence of OPEC as a global cartel for marketing of oil worldwide. The individual and total cumulative crude oil exports of African countries indicated that Nigeria leads others with 27,385.8b/cyr. Nigeria is closely followed by Angola in the second position with 21,635.9b/cyr (NPP, 2017; OPEC, 2017.18). Summary of the cumulative crude oil exports of African countries indicated that the total for the continent is 81,946.8b/cyr for the period of the study. The total cumulative annual average stands at 56,732.4b/cyr and the total cumulative individual country average stands 6,303.6b/cyr. The total cumulative country average of crude oil exports equals total cumulative for the continental Africa. The total African crude oil export of 81,946.8b/cyr for the period of the study represents 86% of the total crude oil production of Africa for the same period which stands at 95,601.5b/cyr. This leaves a balance of 13,654.7b/cyr crude oil produced in the continent; which represents 14% of the continental total (OPEC, 2017/18).

Summary of crude oil exports of African countries compared with other regions of the world put Africa in the 3rd position with a total cumulative of 81,948.8b/cyr for the period 2007 to 2019. This represents 15% of the World crude oil exports, which stands at 518,316.9b/cyr. The combined exports of both North America and Western Europe; stands at 34,933.9b/cyr representing 6% of the World’s total for the period of the study. This is against their towering performance in the importation of crude oil for the period of the study. Both North America and Western Europe imported combined total of 167,737.8b/cyr; which represents 70% of the World’s total imports of crude oil for the same period. Here Africa exports more of its crude oil than it imports. The two regions of the West, which are the greatest importers of crude oil in the world, are equally the greatest sellers of refined oil and other petroleum products. Comparatively, Africa’s total crude oil exports of 81,948.8b/cyr is not up to half (½) of the combined imports of crude oil of both North America and Western Europe which stands at 167,837.8b/cyr between 2007 and 2019. This also means that whenever the two western regional blocs, closes their windows on the importation of African crude oil; the African economy will groan. There is therefore the need for African countries to export less and refine more of their crude oil in order to avoid such unpleasant situations. Moreover, the utilization of bulk of African crude oil through domestic local refining
and other productive uses will create a lot of employment/job opportunities for teaming unemployed African youths; as well create wealth for majority of Africa citizens. It will more importantly put Africa on the threshold of economic independence. The need for Africa to aggressively depart from exports of crude oil is based on the fact that - as you export, you are invariably exporting job/employment opportunities and wealth creation to the citizens of buying (importing) countries; and exacerbating poverty for the African citizens (LCCI, 2016; Saleh, 2019a; OPEC, 2017/18)\(^{11, 21}\).

**Crude Oil Reserve of African Oil Producing Countries, 2007-2019 (B/D, B/CYR)**

The total cumulative crude oil reserve of African countries between 2007 and 2019 is 1,663,851.8b/cyr. It shows Libya leading with 629,002.4 and Nigeria in the second position with 484,049.8b/cyr. Algeria with 158,600.0b/cyr occupies the third position. Other countries with total of 125,606.0b/cyr are placed in the fourth position, Angola with 118,393.6b/cyr is in the fifth position, Sudans with 65,000.0b/cyr ranks sixth on the ladder, Egypt ranks seventh with 57,200.0b/cyr and Gabon in the eight position occupies the lower tip of the ladder (NNPC, 2017; NPP, 2017; OPEC, 2017/18).

Summary of crude oil reserve of African countries shows Libya occupying the first position with 629,002.4b/cyr representing 37% of the total crude oil reserve of Africa, which stands at 1,663,851.8b/cyr. Nigeria places second with 484,049.8b/cyr representing 29%, Algeria third with 158,600.0b/cyr (9%). The performance of Others is 125,606.0b/cyr (8%) and placed in the 4th position, Angola with 118,393.6b/cyr (7%), Sudans sixth with 65,500.0b/cyr (4%), Egypt seventh with 57,200.0b/cyr (3%) and Gabon eight in the last position with 26,000.0b/cyr (3%). The cumulative annual average stands 1,023,908.8b/cyr representing 62% of the total cumulative average for Africa and the individual country average stands at 127,988.6b/cyr representing 8% of the continental total (LCCI, 2016; OPEC, 2017/18)\(^{11}\).

Summary of crude oil reserve of African countries compared with other regions of the world put Africa in the third position with 1,663,851.8b/cyr representing 9% against the Middle East, which leads the world in this regard with 10,439,468.0b/cyr representing 54% for the period of the study. Comparatively, the individual regional annual average of the Middle East, which stands at 803,036b/cyr is 49% which is almost half of Africa’s total cumulative crude oil reserve for the thirteen years covered by this study. The towering performance of the Middle East in this regard is an indication that the region will continue to be the greatest giver from the sales of crude oil in the global oil market in the years ahead if fossil maintains its dominance of the global energy and power sector. Latin America is placed second with 4,428,762.0b/cyr, which represents 23% of the world’s crude oil reserve for the period 2007-2019. Eastern Europe is fourth with 558,268.4b/cyr representing 8% of the world’s total. The remaining regions; ranks as follows: Asia & Pacific in the fifth position with 623,992.2b/cyr (3%), North America in the sixth position with 481,655.2b/cyr (2%) and Western Europe in the seventh position with 141,218.0b/cyr (1%). The world’s total annual average of crude oil reserve for the period of the study stands at 10,412,347.4b/cyr, which represents 54% of the world’s total cumulative crude oil reserve of 18,337,216.6b/cyr. The total cumulative individual regional annual average for the seven regions stands at 1,487,478.2b/cyr, which represents 8% of the world’s total cumulative crude oil reserve for the period. However, if advance researches in science and technology for alternative energy sources continues and results into breakthroughs, then the crude oil reserves of oil producing countries of the world will be less beneficial to them (Saleh, 2019b; OPEC, 2017/18; CBN, 2015)\(^{10}\).

**Refining of Crude Oil Capacity of African Countries, 2007-2019**

The refining capacity of African countries between 2007 and 2019 shows Egypt leading the continent with 9,441.9b/cyr. The combined total of Others with 9,245.6b/cyr placed them in the second position. Algeria is third with 8,307.5b/cyr. The rest are South Africa on the fourth position with 6,298b/cyr, Nigeria in the fifth position with 5,798.0b/cyr, Libya ranks sixth with 4,940.0b/cyr, Angola seventh with 455.0b/cyr and Gabon being the least is in the eight position with 312b/cyr. Congo as one of the crude oil producers in the continent appears to have no single refinery because it produces 2,097.7b/cyr and exports the whole 3,209.7b/cyr, which is not so good for the Congolese citizens and economy. It deprives the citizens of employment/job opportunities and wealth creation associated with domestic refining activities. The Congolese policy of exporting all the crude oil it produces indicate that it depends entirely on imported refined oil and petroleum products to satisfy its domestic needs. Again, this is highly injurious to the Congolese economy because all the foreign revenue earned from the sale of its crude oil is in turn, wasted on the importation of refined oil and petroleum products. In as much as Congo an oil producing African country has fizzled out of the continental refining Table, South Africa a non-oil producing country has featured prominently on the refining Table with a total of 6,298.5b/cyr where it outperformed even the continent’s largest crude oil producers like Nigeria with 5,798.0b/cyr and Angola with 845.0b/cyr. The surprise appearance of South Africa on the continental refining table portrays it as one of Africa’s industrial giants of the 21st Century. In addition, the high intensity of domestic refining activities in South Africa creates employment/job opportunities and wealth creation for its citizens. Under this condition, the actively engaged and sated citizens of South Africa will be less likely to engage in crimes and criminality; and thereby stabilizing the country’s national security equilibrium. Another African country that performed creditably well in terms of refining of crude oil is Egypt which is on top of the continental refining Table with 9,441.9b/cyr; where it overshot its cumulative crude oil production of 7,372.6b/cyr by 2,069.3b/cyr. This shows that Egypt imported the balance of 2,069.3b/cyr to meet up with its domestic refining needs for the period of the study. It also portrays Egypt as an emerging technological and industrial giant of Africa alongside South Africa (Saleh, 2019a; OPEC, 2017/18; NPP, 2017; LCCI, 2017; Saleh, 2020a).

The summary of crude oil refining by African countries gives a total cumulative of 45,188.5b/cyr for the African continent for the period of the study. The total cumulative annual average for the continent stands at 27,802.0b/cyr with an individual country average total of 2,194.9b/cyr. As stated earlier, the two gladiators of the refining industry in
Africa are Egypt (9,441.9b/cyr [21%]) and South Africa (6,298.5b/cyr [14%]). The total cumulative of the two African refining giants stands at 15,740.4b/cyr representing 35% of the total cumulative of the continent, which stands at 45,188.5b/cyr. The performances of Egypt and South Africa in this regard show much promise; as well as portraying them as serious aspirants to global economic prominence in the 21st Century. Whereas the performance of Nigeria, which is Africa’s leading crude oil producer leaves much to be desired. With total cumulative crude oil production of 22,594.8b/cyr and total cumulative crude oil refining of 5,798.0b/cyr, Nigeria has performed sub-optimally; because it succeeded in refining only 25% leaving a balance of 16,796.8b/cyr representing 75% of its total cumulative crude oil (NNPC, 2018; NPP, 2017; OPEC, 2017/18).

Summary of crude oil refining of African countries compared with other regions of the world shows Africa occupying the least and 7th position on the regional refining ladder with 45,188.5b/cyr representing 4% of the world’s total. This portrays sub-optimal performance that is overwhelmed and overshadowed by the towering performance of the world’s regional refining leader, the Asia & Pacific with total cumulative refining of 403,041.9b/cyr representing 32% of the world’s total cumulative refining of 1,247,676.9b/cyr. The total regional cumulative annual average stands at 671,825.7b/cyr. While, the total individual regional annual average stands at 95,975.1b/cyr. The more a region refines, the more jobs and wealth are created for its citizens. It also enhances economic development of that region and of the individual countries within it. This explains why the West (North America & Western Europe) and Asia (particularly China) who are the leading greatest refiners of the world, equally serve as havens for favourable destination of migration for African and Latin American youths in search of greener pastures. This unfortunate situation is not only an irony, but also a paradox because bulk of the wealth generated in the late 20th Century and early 21st Century are proceeds from the refining of crude oil imported from Africa and Latin America. For these two unfortunate regions of the world to exit this unwarranted dependence on the west for succour, they have to export less crude oil and refine more by overhauling their moribund refineries and or establishing new ones. The more refineries they have, the more wealth is created in their countries which when channeled in realistic industrialization and manufacturing, will earn more foreign capital that will compliment the gross domestic product for growing the gross national income. This will in turn grow their national economies and subsequently lead to general development (Saleh, 2018; LCCI, 2016; Adeola et-al, 2015; OPEC, 2017/18) [21, 2, 11]. This is as presented in Figure 2:

![Figure 2: Cumulative Refining Capacity of African Countries compared with other Regions of the World, 2007-2019 (in b/cyr & in %)](source: Generated by the Researcher in 2020 as adapted from OPEC Bulletin, 2017/2018)

Output of Petroleum Products of African Oil Producing Countries, 2007-2019

As Africa’s crude oil production increases, there is also corresponding increase in the continent’s output of petroleum products between 2007 and 2019. Apart from the traditional African oil producing countries, South Africa has joined the list of major producers of output of petroleum products. There is also a continuous appreciation of levels of output of petroleum products in the continent. The total output of petroleum products by African countries between 2007 and 2019 stands at 28,533.4b/cyr. The individual performance of African countries in terms of output of petroleum products for the period of study is follows: Libya 1,1817.9b/cyr, Algeria 7,444.6b/cyr, Egypt 6,684.1b/cyr, South Africa 6,056.5b/cyr, Others 4,942.9b/cyr, Nigeria 794.0b/cyr, Angola 586.3b/cyr and Gabon 209.3b/cyr (OPEC, 2017/18).

Summary of cumulative output of petroleum products of African countries shows Algeria occupying the first position with 7,446.6b/cyr representing 26% of the total output of petroleum products of Africa, which stands at 28,533.4b/cyr. Egypt is second with 6,684.1b/cyr (23%),
South Africa is third with 6,056.5b/cyr (22%), Others fourth with 4,942.9b/cyr (17%), Libya fifth with 1,817.9b/cyr (6%), Nigeria sixth with 794.0b/cyr representing 3%. Angola seventh with 586.3b/cyr (2%), and Gabon with 209.3b/cyr (1%). The cumulative annual average stands 17,559.2b/cyr representing 62% of the total cumulative average for Africa and the individual country average stands at 2,194.9b/cyr representing 8% of the continental total (NNPC, 2017/18; OPEC, 2017/18) [16].

Summary of output of petroleum products of African countries compared with other regions of the world shows Africa occupying the least and 7th position and the last on the world regional output of petroleum products ladder with 28,353.4b/cyr representing 2% of the world’s total. Asia & Pacific with total cumulative output of petroleum products of 359,964.0b/cyr representing 31% of the world’s total cumulative output of petroleum products of 1,142,500.7b/cyr, leads the Table. Africa underperformed where its total output of petroleum products of 28,353.4b/cyr just represents 8% of the world’s regional leader Asia & Pacific’s total cumulative output of petroleum products of 359,964.0b/cyr. The total regional cumulative annual average stands at 615,192.9b/cyr. The total individual regional annual average stands at 87,884.7b/cyr. It is not in doubt that the greatest refiners of crude oil are also the greatest producers of large outputs of petroleum products. Hence, the Asia & Pacific as well as the Western regions (North America and Western Europe) who are the highest refiners of crude oil in the world; are equally the highest in terms of output of petroleum products. The sales of petroleum products by these two regions, has been the main source of their foreign revenue which they effectively channeled towards industrialization and manufacturing. The sales of manufactured goods and products by the world’s two regional leaders; has been the main reason for the continuous growth of their national economies and of general development. Hence, the western regional leader - USA and the Asian leader - China are the first and second largest economies of the world in the 21st Century. Africa, Latin America and to some extent the Middle East who have been in the petroleum industry for the past six to seven decades have failed to act on hind by not domesticating refining activities and the simultaneous production of output of petroleum products for sales in the global oil market. This will not only bloat their economies, but will also wriggle them out of the shackles of economic dependence. This is not only doable, but also attainable with the right political will (LCCI, 2017; Saleh, 2019b; Cox, 1987; OPEC, 2017/18) [7].

Oil Demand by African Countries, 2007-2019

Under an ideal situation, oil-producing countries of the world should not be part of those that demand for oil. However, even those highest crude oil producers, highest refiners and highest producers of output of petroleum products, are simultaneously the highest on the list of those demanding for oil in the world. The demand for oil by this category of industrialized and industrializing countries is justified because it augments their power and energy sources for powering their industries and manufacturing outfits. Whereas, with the exception of South Africa and to some extent Egypt, the high demand for oil by African countries cannot be explained because of their very low appetite for industrialization and manufacturing. Therefore, the increasing demand for oil by African countries put their total cumulative for the period of the study to 50,546.4b/cyr. The individual performances of African countries in terms of demand for oil in the global oil market (GOM) are as follows: Egypt 10,791.8b/cyr, South Africa 8,290.9 b/cyr, Algeria 5,006.3 b/cyr, Nigeria 5,006.3b/cyr. Others 4,942.9b/cyr, Libya 2,888.3b/cyr, Angola 1,675.7b/cyr, Tunisia 1,174.4b/cyr and Gabon 307.6b/cyr (Onyali, 2014; OPEC, 2017/18) [16].

Summary of total cumulative oil demand by African countries between 2007 and 2019 stands at 50,546.4b/cyr; with a cumulative annual average of 34,996.5b/cyr, which represent 69% of the continental total. The total of individual country average stands at 3,887.5b/cyr, which represent 8% of Africa’s total cumulative for the period of the study. The individual performances of African countries shows that Egypt is in the first position with 10,791.8b/cyr (27%), South Africa 2nd with 8,290.9b/cyr (21%), Algeria 3rd with 5,038.7b/cyr (13%), Nigeria 4th with 5,006.3b/cyr (12%), Others (comprising those not listed individually on the Table) is placed in the 5th position with 4,942.9b/cyr (12%), Libya 6th with 2,888.3b/cyr (7%), Angola 7th with 1,675.7b/cyr (4%), Tunisia 8th with 1,174.4b/cyr (3%), and Gabon 9th with 307.6b/cyr (1%) (OPEC, 2017/18).

Summary of oil demand by African countries compared with other regions of the world shows Africa placing seventh and the least on the regional oil demand ranking with 40,166.6b/cyr representing 4% of the world’s total cumulative oil demand of 1,188,968.3b/cr. The Asia & Pacific region leads the world in terms of oil demand with cumulative of 398,235.5b/cyr representing 33% of the world’s total cumulative oil demand of 1,188,968.3b/cy. The North American Region is second with 281,105.2b/cyr representing 23% of the world’s total cumulative oil demand. Western Europe is third with 170,493.9b/cyr (15%). Others are Latin America 4th with 119,368.1b/cyr (10%), Middle East 5th with 103,355.5b/cyr (9%) and Eastern Europe 6th with 72,243.7b/cyr (6%). The combined total cumulative of the two Western Regions of North America and Western Europe is 451,599.1b/cyr representing 38% of the world’s total for the period of the study (OPEC, 2017/18; NPP).

Imports of Crude Oil by African Countries, 2007-2019

The world’s imports of crude oil by African countries indicated that only three African countries of Morocco, South Africa and Others were engaged in the importation of crude oil between 2007 and 2019. This shows that none of the African oil producing countries imported crude oil for the period of the study. South Africa as a single country leads the continent in terms of imports of crude oil with a cumulative of 5,891.6b/cyr representing 64% of the continent’s total cumulative of 9,288.3b/cyr for the period of the study. The combined total of Others is second with 2,445.1b/cyr (26%) and Morocco third with 951.6b/cyr (10%).

Summary of total cumulative crude oil imports by African countries between 2007 and 2019 stands at 9,288.3b/cyr; with a cumulative annual average of 2,143.5b/cyr, which represent 23% of the continental total. The outstanding performance of South Africa with total cumulative of 5,891.6b/cyr (64%) is not only commendable, but also portraying it as an emerging industrial hub of the continent. South Africa’s peak performance is anchored on the fact
that, though not a major oil producing country; it has been among top-three continental refiners of crude oil (6,298.5b/cyr [14% of the continental total of 45,188.5b/cyr]) and output of petroleum products (6,056.5 [22% of the continental total of 28,533.4b/cyr]). The intense refining activities in South Africa have generated employment/job opportunities and created wealth for the country's citizens. This explains why South Africa is increasingly becoming a favourable migration destination for citizens of other African countries, in search of jobs and business opportunities (LCCI, 2016; OPEC, 2017/18) [11].

Summary of cumulative crude oil imports of African countries compared with other regions between 2007 and 2019 shows that the continent is second to the last on the ladder with total cumulative total of 9,288.3b/cyr, which represents 4% of the continental world’s total cumulative of 240,408.3b/cyr for the period of the study. Africa’s performance in this regard has been overwhelmed by Western Europe the world’s leading region with an intimidating total cumulative crude oil import of 132,108.6b/cyr representing 55% of the world’s total cumulative of 240,408.3b/cyr for the period of the study. Combined imports of North America and Western Europe stands at 167,837.8b/cyr, which is 70% of the world’s total. The total cumulative average for the seven regions stands at 129,452.4b/cyr (representing 54% of the world’s total cumulative) and the total individual regional annual average stands at 18,493.2b/cyr (resenting 8% of the world’s total cumulative). The combined towering performances of the two western regions (North America and Western Europe) go to solidify and justify their unshakable global industrial leadership positions in the world. The Asia & Pacific underperformed and fall short of global expectations; because one of its countries China is fast industrializing more especially in the manufacturing sector (Gilpin, 2001; OPEC, 2017/18) [9].

Imports of Petroleum Products by African Countries, 2007-2019
The world’s imports of petroleum products by African countries indicated that nine African countries were engaged in the importation of petroleum products between 2007 and 2019. The combined importation of petroleum products not listed individually but as Others leads the continent with 8,994.0b/cyr. Nigeria is placed second with 5,162.3b/cyr, Egypt third with 3,435.8b/cyr, Morocco fourth with 2,360.8b/cyr, Libya fifth with 1,342.9b/cyr, Angola sixth with 1,276.6b/cyr, Algeria seventh with 1,058.2b/cyr, Tunisia eight with 899.6b/cyr and Gabon ninth with 117.0b/cyr (NPP, 2017; OPEC, 2017/18).

Summary of total cumulative imports of petroleum products by African countries between 2007 and 2019 stands at 22,647.2b/cyr; with a cumulative annual average of 15,678.9b/cyr, which represent 69% of the continental total. South Africa an emerging industrial and technological giant of the continent did not appear on the list of leading continental consumers of petroleum products like Nigeria. Nigeria’s case is highly lamentable because it has been enjoying massive oil wealth for the past six decades but with no functional refineries to refine and process these petroleum products. It is therefore very unlikely if Nigeria’s aspiration of being one of the 20 biggest economies of the world will be attainable in the next fifty years if it does embark on aggressive refining of crude, processing of petroleum products, industrialization and manufacturing (Saleh, 2019a).

The summary of cumulative imports of petroleum products by African countries compared with other regions of the world show Africa squaring up with the Middle East on the lower rung of the ladder with 7% each. The world’s leading regional consumer of petroleum products is ironically the Asia & Pacific who is also the world’s leading regional refiner of crude oil for the period of the study. The total cumulative imports of petroleum products by the Asia & Pacific is 120,408.6b/cyr representing 36% of the world’s total cumulative of 331,194.5b/cyr. In as much as the Asia & Pacific is the world’s regional leader in terms of importation of petroleum products, it equally leads other regions of the world in terms of output of petroleum products with total cumulative of 359,964.0 representing 31% of the world’s total cumulative of 1,142,500.7b/cyr for the period of the study. The regional cumulative annual average of imports of petroleum products for the seven regions of the world is 178,335.5b/cyr. While, the individual regional annual average is 25,476.5b/cyr. The remaining six regions of the world are ranked as follows: Western Europe is in the second position with 92,953.9b/cyr representing 28%. Latin America is 3rd with 32,032.0b/cyr representing 10%. North America is 4th with 29,968.9b/cyr representing 9%. Africa and Middle East squaring up on the 5th position with 22,647.2b/cyr (7%) & 21,811.4b/cyr (7%) each. The two western regions of North America and Western Europe who are the world’s leaders in terms of refining of crude oil and the production of petroleum outputs performed moderately where the combined total cumulative imports of petroleum products for the period of the study stands at 122,922.8(37%) (LCCI, 2016; Saleh, 2019b; OPEC, 2017/18) [11].

Conclusion
From the analysis so far, conclusion can be drawn that Africa has either, performed sub-optimally or out rightly underperformed in the vital sectors of refining, output of petroleum products and imports of crude oil of the world’s oil industry. This failure is hugely hinged on leadership failures where those who rule the various countries of the continent lack vision and mission for their countries because they are largely surrogates in power that have no interest of their countries at heart. As such, they failed to direct enormous wealth generated from the sale of crude oil towards refining and production of petroleum products; the two vital key sectors of the world oil industry capable of generating more employment/job opportunities and wealth creation for their citizens. On the regional comparison of more especially refining and output of petroleum products, Africa seriously underperformed where it trailed behind the six regions of the world and placed in the last position with total cumulative refining of 45,188.5b/cyr (4%) and total cumulative output of petroleum products of 28,533.4b/cyr (2%). This is against that of the world’s regional leader – Asia & Pacific with total cumulative refining of 403,041.9b/cyr (32%) and total cumulative petroleum products output of 359,964.0 (31%) of the world’s total. This has serious implication for the economy of the continent and its citizens; because the export of virtually all its crude oil; automatically translate into exporting employment/job opportunities and wealth creation for the citizens of the foreign countries and the exacerbation of
unemployment and poverty at the domestic level. In addition, it helps to catapult the status of these already developed economies and the deepening of underdevelopment for the African continent. There is also a growing apprehension among African intellectuals that with virtually no effort for domestically researching into alternative energy sources as the result of these self-inflicted asymmetrical and dialectical relationships, Africa appears to be heading for a disaster or even doom. This is based on the fact that the West and China who are major buyers of Africa’s crude oil, are themselves major producers of crude oil with so many alternative energy sources at their disposal. As such, the African economy will grind to a halt in the event of global contingencies such as Corona Virus 2019 (COVID-19), war or dwindling oil fortune in the global oil market. Further consternation and apprehension for Africa is when USA, Western Europe, China and Russia eventually come up with alternative sources of energy that will render fossil fuel useless. When this scenario eventually plays out, Africa will be forced to revert-back to worst economic situations than the pre-colonial and colonial times.

Recommendations

In view of the sub-optimal and underperformance of Africa in the areas of refining and output of petroleum products for the period of the study, the following alternatives and suggestions are proffered:

1. African countries should henceforth place top priority on refining where a chunk of their national budgets should be dedicated to the setting-up of functional refineries in most of their towns and cities.
2. Petro-chemical industries should be domesticated in those countries that does not have; and more should be set-up in countries that already have.
3. Other African countries should emulate South Africa by embarking on aggressive imports of crude oil; because as a non-oil producing African country, it import large crude oil to feed its refineries. This not only create employment/job opportunities and wealth for South Africans, it in addition helps grow the country’s economy.
4. African countries that are not so economically buoyant can embark on the establishment of private or modular refineries that will increase refining/production processes and wealth creation in their domestic economies.

References