Assessing the Effectiveness of Ghana's Local Content Policy in the Oil and Gas Industry

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Abstract

Without the much-needed financial and technical resources to exploit the oil and gas resource discovered in 2007 on her own, Ghana sought foreign expertise to develop the Jubilee Field and surrounding oil fields. To enable locals participate more in the exploitation of the resource, a local content policy was adopted in 2011 and a subsequent Legislative Instrument passed in 2013 to enforce this policy. The question this paper seeks to answer is how effective the implementation of the Local Content Legislation in Ghana's Oil and Gas Sector has been in fulfilling intended goals and objectives. Employing mostly qualitative techniques, this research interviewed three key stakeholders from a cross-section of the upstream oil and gas sector, which is directly targeted by the legislation. It also interviewed representatives of the body mandated by law to implement this legislation and a private policy expert. Respondents were chosen based on purposive stakeholder sampling, using the snowballing method. The data was analysed along four main themes: the alignment of the main policy content with the intended outcomes, the social, economic and political context of the legislation, the leadership for the implementation and the level of stakeholder involvement in implementation. Findings indicated that despite the fact that the rationale for instituting such legislation is highly laudable, the alignment of the legislation, the social, economic and political context and stakeholder involvement do not support effective implementation. Implementers of the legislation therefore need to ensure that concerns and recommendations are taken into consideration to ensure that Ghana derives the maximum benefits intended.

Keywords: Local Content Legislation, Oil and Gas Sector and Snowballing.

1: Background of Study

The discovery of a natural resource in any country often comes with much excitement and a sense of expectation because of the anticipated windfalls that usually accompany the exploitation of these resources (Armah & Torku, 2014). In nations where there are inadequate resources and know-how, foreign expertise is sought to exploit these resources. Policymakers scramble to reap the maximum benefits for their nations from these exhaustible resources by instituting appropriate policies to ensure that their citizens also benefit from the resource (Tordo et al, 2013).

Some of the strategies include passing a Petroleum Law that governs the how revenue is split between IOCs and Government. This strategy is similar to a Revenue Management Bill which prescribes how Governments spend the revenues from oil and gas. One of the most commonly adopted strategies is the “Local Content Development Policy” (also known as content requirements) (Ado, 2013). These policies generally aim to create further benefits to the economies of the host nations beyond the direct contribution of the sector but through activities that link to other sectors of the economy (Tordo et al, 2013).

The situation in Ghana was no different, when in 2007, the country discovered commercial quantities of oil off the shores of the southernmost point of Ghana, Cape Three Points (Armah & Torku, 2014). This news was met with widespread euphoria, and with the discovery came a new sense of purpose for Ghanaians as they revelled in the nation’s new status as an oil-producing nation. The then sitting head of state, President Kuffuor, summarized the thoughts and expectations of most Ghanaians when he hailed the discovery as a “shot in the arm” that would give the country the wings it needs to fly and transform Ghana into an “African Tiger” (BBC News, 2007).

Many were the expectations but in one way or the other, everyone expected to see the benefits of the resource reflected in their own life. One major expectation nurtured by many Ghanaians after the discovery was the reduction in prices of petroleum and petroleum products and the development of infrastructure in various sectors of the economy by the expected oil revenue. It was the prevalent belief that once the country started the production of oil, less of the resource would be imported, which would cause a significant reduction in the costs to the people and improving the quality of life (Clottey, 2007). Another major avenue Ghanaians expected to see the oil find affect their standard of living was the expectation that the industry will employ many Ghanaians and as such the revenue will trickle down to families. A testament to this expectation was the almost overnight springing up of various institutions and courses in already established ones, offering one diploma, certificate or the other in oil and gas management etc.

Indeed, in lay minds, the President and Ghanaians were within their rights to hold such expectations especially with the way the media had covered the discovery and played up hopes of the oil find being the saviour to all economic problems. In theory, natural resource abundance could promote growth as a resource boom boosts economic development through more investments in economic infrastructure and quick human capital development in an occurrence known as the “big push” theory (Iimi, 2006). Essentially, an application of this theory results in discovery of a natural resource becoming an important spur for rapid development in poorer countries (Sachs & Warner, The Big Push, Natural Resource Booms and Growth, 1999).

Despite this theory however, Ghanaians and the entire world have been witnesses to the poor standards of living of citizens of countries like Nigeria and Angola in spite of their resource abundance. This phenomenon, known as *the resource curse*, is explained based on extensive studies that have demonstrated that countries with abundant natural resources tend to develop at a slower rate than other resource-poor countries due to a myriad of factors (Sachs & Warner, 1997).

After the initial euphoria of the find had died down, one question that had been on the minds of most Ghanaians is how much control the government actually had of the resource. In 2011, an extensive nationwide survey jointly conducted by the Youth Network for Human Rights and Democracy and Friedrich-Ebert-Stiftung, showed that a majority of the population believed that non-Ghanaians will profit more from the production of oil than Ghanaians would (Youth Network for Human Rights & Democracy; Friedrich-Ebert-Stiftung, 2011). Civil society groups in Ghana began mounting pressure on the government to develop a legal and regulatory framework to protect the interests of the nation and its citizens and publish the full details of agreements between the country and the foreign multinationals exploring the resource (Gyimah-Boadi & Prempeh, 2012).

It however did not take very long for Ghanaians and the Government to realize that the oil and gas industry is a very capital intensive one, which could not employ as many people as expected. Therefore in a bid to ensure that the resource curse is avoided, maximize and extend the benefits of this extractive resource to various sectors of the economy and ensure that Ghanaians benefit from the oil led to the adoption of a “Local Content Policy (LCP)”. By definition the local content in the oil and gas industry is the “added value brought to a host nation through the activities of the oil and gas industry” (IPIECA, 2011). To enforce Ghana’s policy and lend it more credence, a Legislative Instrument (LI) has been passed into law by Ghana’s Parliament, attempting to gradually increase local control and reap long term benefits of the oil resource. This legislation also includes various regulations that lay out the rules and procedures to follow when implementing programmes to comply with the law.

1.2 Facts about Ghana's Oil

In 2007, a consortium of companies led by Kosmos Energy struck substantial quantities of high-grade, high-quality oil between the Deep-water Tano and West Cape Three Points blocks. This field is now known as the Jubilee Oil Field (Gyimah-Boadi & Prempeh, 2012). Since then, other exploration activities have discovered substantial quantities of the resource also known as "black gold" in other surrounding fields (Kastning, 2011).

Overall, the country's current reserves are estimated at about 600 million barrels, contributing about $20 billion of revenue over the next 20 years from direct revenue, corporate taxes and royalties; an average of US$1 billion annually (Gyimah-Boadi & Prempeh, 2012). When oil production began in December 2010, Ghana's economy recorded one of the highest growth rates in the world, at 15%, in 2011 (KPMG, 2013). By global and even regional reserves, Ghana's reserves are very modest, as evidenced by Tables 1.1 and 1.2 below (Gyimah-Boadi & Prempeh, 2012). In sub-Saharan Africa, compared to Nigeria's 37.2 billion barrels of oil representing 2.2% of global reserves, and Angola's 12.7 billion barrels, representing 0.8% (BP, 2013), Ghana's find is a tiny fraction. Nevertheless, for country of 25.9 million people with a nominal GDP per capita of US$1,563, it is still a very substantial find (Ghana Statistical Service, 2013) (Gyimah-Boadi & Prempeh, 2012).

Table 1.1 Top 10 Largest Countries by Proven Oil Reserves[1]

Country	Number of Barrels (in billions)	Percentage of total world reserves (%)

[1] Proven oil reserves are generally taken to be those quantities that geological and engineering information indicates with reasonable certainty can be recovered in the future from known reservoirs under existing economic and operating conditions. Reserves include gas condensate and natural gas liquids (NGLs) as well as crude oil.

Venezuela	297.6	17.8
Saudi Arabia	265.9	15.9
Canada	173.9	10.4
Iran	157.0	9.4
Iraq	150.0	9.0
Kuwait	101.5	6.1
United Arab Emirates	97.8	5.9
Russian Federation	87.2	5.2
Libya	48.0	2.9
Nigeria	37.2	2.2

(Source: BP Statistical Review of World Energy, 2013)

Table 1.2 Top 5 Largest African Countries by Proven Oil Reserves

Country	Number of Barrels (in billions)	Percentage of total world reserves (%)
Libya	48.0	2.9
Nigeria	37.2	2.2
Angola	12.7	0.8
Algeria	12.2	0.7
Egypt	4.3	0.3

(Source: BP Statistical Review of World Energy, 2013)

Currently, Ghana's stakes in the Jubilee Field are held by the Ghana National Petroleum Corporation, holding 13.4% (GNPC, 2014). This is a minority stake compared to Tullow Oil's 35.78%, Kosmos Energy's 24.05%, and Anadarko Petroleum's 24.05% (GNPC, 2014). The other remaining stakes are held by South Africa's Petro SA at 2.72% (GNPC, 2014).

1.3 Ghana's Local Content Policy Framework and Legislation

In July 2013, Ghana's Minister of Energy, Hon Emmanuel Armah-Kofi Buah, laid the Petroleum (Local Content And Local Participation In Petroleum Activities) Regulations, 2013 (LI 2204) before Parliament for legislation, after being approved by cabinet on 6th June 2013 (Ministry of Energy, 2013). The framework was put together in 2011 by a team of government policy experts, who drew from the experiences of other producer countries (Ministry of Energy, 2011). The regulations were passed into law in November 2013, and became effective after a three month period in February 2014. According to the Ministry of Energy, the policy is “the most reliable instrument to advance the stake of the people of the nation in the Oil and Gas industry in a sustainable manner” (Ministry of Energy, 2011).

Table 1.3 A Summary of Ghana’s Local Content Expectations from the Start of Effectiveness or start of Petroleum Agreement

Item	Start	5 years	10 years
1. Goods and services	10%	50%	60%-90%
2. Recruitment and training			
a. Management staff	30%	50%-60%	70%-80%
b. Technical core staff	20%	50%-60%	70%-80%
c. Other staff	80%	90%	100%

(Source: Petroleum (Local Content And Local Participation In Petroleum Activities) Regulations, 2013 (LI 2204))

The main objective of the Government is to use the contributions of the oil and gas resource to accelerate development and industrialisation in the economy as has been done in other producer countries. It is expected that the development of the oil and gas resource will bring “accelerated growth, poverty reduction and general prosperity to the people of Ghana”. This anticipation will need the active participation of Ghanaians in the oil and gas industry, through local content[2] and local participation[3]. A more detailed framework is attached as Appendix 1.

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[2] Local content as defined by Ghana’s policy framework refers to the quantum/ percentage of locally produced materials, personnel, financing, goods and services rendered to the oil industry and which can be measured in monetary terms.

[3] Local participation refers to the level of Ghanaian Equity Ownership.

1.4 Problem Statement

Policy experts and policy researchers have long asserted that the mere fact that a policy is adopted or that there are regulations to back it does not translate into the successful implementation of that policy (Smith 1973; Love 2004; Calista 1994, as cited in Bhuyan, Jorgensen & Sharman 2010). According to Love (2004), during program evaluations, the results often show that the policies and programs do not directly achieve their intended outcomes anticipated. This is mainly due to the fact that ideas that may look good on paper may fail in practical application or because they are either not used the way they are intended to be used or not used at all (Love 2004).

After only recently discovering oil, Ghana may be on the brink of following in the paths of fellow African counterparts such as Equatorial Guinea, Nigeria and Angola, if adequate steps are not taken to ensure that the gains from the resource trickle down to the grassroots and power economic development as expected. A note of caution is in order here because an LCP is not necessarily a panacea for solving the ills that can befall a newly oil-rich economy. Ghana however, does have some advantages on the afore mentioned African countries being the only African country with a stable democracy and a vibrant media before finding first oil so the outcome of the oil find is ex ante- unclear.

According to Smith (1973), government policymakers often tend to develop broad, sweeping polices which lack the capacity for implementation. Already, history does not support Ghana's implementation record, as Petroleum Law (PNDC Law 84), contains some Local Content Provisions for the oil and gas sector which are not being implemented. This makes one wonder if the passage of the Local Content law can help increase the benefits of the oil find to the local population? Clearly if the LCP is to help in this regard, it is has to be implemented correctly in order to be effective.

1.5 Research question

Resource rich nations like Norway and Brazil have found ways to properly harness local content laws to the benefits of their oil and gas industries and their economies. Other countries like Nigeria and Angola have had challenges in successfully implementing their policies. Ghana, after recently passing its own local content legislation, is at the threshold of either going the way of the successful nations or the less successful ones. Considering this, the research question for this dissertation is:

1. How effective is the implementation of the Local Content Legislation in Ghana's oil and gas sector in fulfilling intended goals and objectives?

1.6 Research objectives

To help answer the research question, the objectives of this paper are:

1. To evaluate the alignment of the LC legislation with the intended goals and objectives.
2. To determine the practicality of the goals and objectives of the legislation.
3. To investigate how beneficial it will be to Ghanaians and the nation as a whole.
4. To make recommendations to the Government of Ghana and all stakeholders based on findings and lessons drawn from other countries.

2: Literature Review and Analysis

2.1 Introduction

The oil and gas resource, like every other resource, is finite. Nations are increasingly becoming preoccupied with improving the chances for local businesses to participate in the exploitation of resources, especially resources in the extractive industries like mining and oil and gas. This is because of a global belief that the resources in these industries drive economic growth and can help lift a nation out of poverty (Esteves & Barclay, 2011). To obtain the greatest benefits for their countries, policymakers design various policies to guard their nations' interests, often themed with increasing local content (Tordo et al., 2013).

The use of incentives and performance standards by developed countries to influence economic growth and nurture various local industries has long been a trend (Tordo et al, 2013; Ado, 2013; Warner, 2011; Veloso, 2006). Several nations such as Canada, in their automobile industry, Australia, in their automobile and tobacco industries, and several European nations in their automobile and electronics industries have employed the use of policies such as content requirements, or export performance to their advantages (Ado, 2013; Veloso, 2006). Throughout literature, countries like the United Kingdom, Norway, Brazil, Malaysia and Trinidad and Tobago are often touted as local content successes in the oil and gas industry (Tordo et al., 2013; Ado, 2013; Kazzazi & Nouri, 2012; Ovadia, 2012; Ihua et al., 2009; Dawe, 2007). Evidently, the use of these policies and their proper implementation have benefitted these nations and played a role in their industrial growth and economic development. How can Ghana, as a new oil-producing nation, harness its newly passed legislation to the benefit of the nation?

2.2 What are Local Content Policies?

The history of Local Content Policies (LCPs) in oil and gas is traced to the 1970s, where it was introduced by the United Kingdom to exploit its North Sea resources (Tordo et al, 2011). Since then, LCPs have evolved from focusing on increased local content in a particular industry to trickling down benefits to other sectors of the economy (Tordo et al., 2011: 8).

Researchers and industry players have various definitions for local content, largely depending on the industry and the context in which it is being referred (Ado, 2013; Tordo et al., 2013; Kazzazi & Nouri, 2012). Local content expert Michael Warner defines local content as the "composite value contributed to the national economy from the purchase on bought-in goods and services" (Warner, 2011:9). Tordo et al. (2013) also define local content as the extent to which production in the extractive industry sector adds value to other industry sectors through its activities.

Heum et al (2003), in a study, jointly commissioned by the Nigerian and Norwegian governments, that explored viable policy approaches to a Nigerian Local Content defined local content as value addition activities taking place in Nigeria. They also defined a Nigerian company as one with ownership and/or infrastracture to be able to manufacture and provide services in Nigeria. Their research concluded that, it is more important that local content is seen in terms of the value added in the host country; to the local staff, the local materials, and local services and facilities, than in terms of the ownership or location of a company performing those value-added services (Heum et al., 2003). This is because, building capacity of the local people is more sustainable in the long run than quantifying the level of ownership, as this equips the people to do more for themselves (Tordo et al., 2013; Kazzazi & Nouri, 2012).

Kazzazi and Nouri (2012), base their findings on the development of a conceptual model designed to help understand the concept of local content and its development in the oil and gas sector. This model is based on a set of factors related to each other; local policies, local infrasturacture, local environment and local capability (Kazzazi & Nouri, 2012). Their findings showed that the promotion of local content varies between countries, depending on the political, economic and social development status of a country. In their study, public and industrial policies were found to have a direct effect on the local macroeconomic and business and investment environments and local infrastructure; information technology, local companies needs, local standards, social, educational, institutional and business development infrastructure. Local policies were also found to have a causal effect on the capabilities of local companies, on education, on skills and expertise development, research and development capabilities and on technology and know-how transfer capabilities (Kazzazi & Nouri, 2012).

In a study on enhancing the benefits of local content, Esteves and Barclay (2011) underlined the widespread belief that promoting local content has self-seeking benefits for both corporations and communities alike. By drawing on a previous study that designed a good practice local procurement guide for the Australian mining, oil and gas sectors, this impact assessment research showed that, from a corporate perspective, local content is seen as giving the corporation social licence to operate by giving the communities a stake in the project and ensuring that the companies have access to a reliable supplier nearby, thereby increasing their value chain efficiency and giving them a competitive advantage in the eyes of the community and the government (Esteves & Barclay, 2011:1; Warner, 2007:5). For the communities, local content development gives the members of the community the opportunity to participate in the development of a resource they could not have funded otherwise, and permitting the benefits of the resource to flow into the communites (Esteves & Barclay, 2011).

Despite the divergent views on how to define and approach the development of local content, all definitions concur that the successful development of local content should result in some form of value addition to the country. As the Chairman for the Nigerian House of Representatives Committee on Petroleum(Upstream), Tam Brisibe, put it, “local content means different things to different people…the common denominator is value addition in the country” (Ogbodo, 2008; as cited in Ihua et al., 2009).

2.3 Why Local Content?

Developing nations with rich resource reserves are desperate to escape the resource curse phenomenon (Warner, 2011). Governments all over the world have at different points in time employed different interventions and strategies to prevent various economic disasters from occuring and increase the gains of a resource in their countries (Ado, 2013; Esteves et al., 2012; Veloso, 2006). Paramount among them being the desire to escape from the ‘resource curse’ and market failures (Ado, 2013; Tordo et al., 2013; Ihua et al., 2009).

The oil and gas industry, as a capital intensive industry also does not provide many employment opportunities as compared to other industries. Consequently, the rationale behind adopting local content policies is to create links that enable the profits of the resource to flow to other sectors (Tordo et al 2013). Hirschman (1958, as cited in Tordo et al 2013) identifies three types of sector links the industry could create; backward links, which create demand for the output of one industry to be used as input for another industry; forward links, which supply the output of an industry as input for another; and financial links, which are taxes paid by the industry to the government and can be saved or spent on other goods and services. Therefore, an increase in the output on one industry can have ripple effects on other industries through an increase in demand for products, or an increase in its output (Hirschman 1958, as cited in Tordo et al 2013).

Closely related to the above, many also argue that governments are concerned with passing LCPs to achieve two main objectives; to increase the value-added to domestically produced goods vis-à-vis imported goods; to stimulate local employment by increased domestic labour (Tordo et al., 2013; Warner, 2011, Esteves & Barclay, 2011; Ihua et al., 2011; Heum, 2008; Veloso, 2006; Heum et al., 2003) . Invariably, these two objectives are linked, as requiring companies to produce domestically will require that that labour is increased and this will most likely be domestic labour (Tordo et al., 2013).

Nevertheless, as Esteves et al., (2012) point out, various stakeholders also have their own interests in seeing the success of LCPs. Oil, Gas and Mining companies also want to be seen as good corporate citizens and in the long run, maximise shareholder returns (Warner, 2007). Civil society organizations are also interested in the success of LCPs so their special interests are protected and to see local economic development (Esteves et al., 2012). International NGOs, who are also a part of civil society may also have their brands to protect and as such, wish to see the success of LCPs (Esteves et al, 2012).

2.4 Arguments for and against Local Content Polices

There is a great divide among many economists and researchers about the benefits of local content polices, with many people taking one side of two extremes. For Veloso (2006), the little empirical evidence available to support both sides of the divide suggest that impact of LCPs are mixed (Veloso, 2006). The main arguments for enacting local content requirements fall under three broad categories; to increase value-added, to correct market failures and externalities and for social reasons (Tordo et al., 2013). On the other hand, arguments against LCPs can be grouped into three categories; the misalignment between policy instruments and objectives; misallocation of resources and or inefficiencies and; international regulations (Tordo et al., 2013).

Protecting infant industries is one of the most important arguments given for introducing local content requirements into various industries (Ado, 2013). Supporters of this position argue that local industries in developing countries are not as mature as their multinational counterparts who may have been in the industry longer and enjoy economies of scale (Warner, 2011). They therefore argue that these domestic companies are given some sort of shield to enable to them catch up and compete effectively with their international competititors (Warner, 2011). As such, LCPs will enable them partner with the bigger companies and learn from them, as is evident in Norway’s model (Tordo et al., 2013; Heum, 2008).

Closely related to this argument is the market power argument, which is of the view that big multinational companies usually supply the oil and gas industry and as such, have the market power to put domestic firms at a disadvantage in the value chain (Tordo et al., 2013). This argument is different from the infant industries argument in the sense that by putting in place local content requirements, the infant industry may be at an advantage, but to check the market power of multinationals, LCPs are specifically introduced to deal with the issue, for example, in the Austrialian LCP, there is a requirement to demonstrably not disadvantage any domestic suppliers (Warner, 2011).

Another major argument for using LCPs is the argument that they can be used to support social objectives like employment and also be used as social compensation for the communities where the resource is being extracted (Ado, 2013; Tordo et al., 2013). Ogri (2001) argues that the sheer nature of oil and gas extraction activities is prone to social and economic disasters (as cited in Ado, 2013). This is because members of the communities may temporarily or permanently loose their sources of livelihood, and as such need to be adequately compensated through LCPs (Tordo et al., 2013; Warner, 2011). Using LCPs in this way may require companies to give consideration to suppliers who source materials and labour from the local community and may also require that a percentage of locals are given employment (Tordo et al., 2013; Warner, 2011). In this vain, LCPs can be seen as an 'extension of Corporate Social Responsibility (CSR)' (Ado, 2013:6).

It can also be argued for that content requirements could be used to achieve political harmony by bring the interest of the government in line with the interests of the community (Ado, 2013; Warner, 2011). For example, as concluded in Ihua et al. (2011), local content laws are succeeding in preventing conflicts in the Niger Delta area (Ihua et al., 2011). Warner (2011) also underlines this point by arguing that local content rules are bringing harmony to post-war Liberia and Sierra Leone (Warner, 2011).

On the contrary, many economic arguments consider the use of LCPs as protectionist and decreasing the welfare of citizens in the host nations in the long run. Grossman (1981), the pioneer of LCP literature, in his study established that due to the lack of technological capability, the cost of goods and services produced by a local company will be greater than the international price, unless the local company was sourcing its materials from abroad (Grossman, 1981). The introduction of an LCP to correct this failure, will result in an increase in domestic welfare because of the increase in domestic output. However, this will only last temporarily. The cost of local materials will still be high, causing the price of the final good to be high as well, and decrease the quantity sold, resulting in a decrease in domestic welfare and welfare losses in the long run (as cited in Veloso, 2006). However, as Veloso (2006) argues, this model assumes well-behaved costs in an efficient market, with inefficiencies arising solely from market power. He argues that local content policies are enacted in economies with market conditions far from equilibrium and as such, the model will not hold for many markets (Veloso, 2006).

The misalignment argument against local content policies believes that there may be different ways to tackle externalities and market failures other than using content requirements (Tordo et al., 2013). Policymakers need to first determine if indeed there is an externality and if there are other ways to correct them before using LCPs. They make this argument based on the fact that if there are externalities due to the inadequate training of locals to work in the industry, a more approach will be to look at that country's educational system to determine shortfalls rather than using policies, because in the long-run, locals will still not have the necessary training, and the policy will be deemed a failure (Tordo et al., 2013). Tordo et al., (2013) suggest that in this case, incentives for training will be a better alternative to LCPs. Also using the misalignment argument to counter the market power argument, Tordo et al., (2013) argue that there may be inadequate market supervision and competition regulation and in this case, content requirements may not be the optimum answer to resolving this market failure. Therefore, regulations should ensure that there is free and fair procurement opportunities for domestic suppliers.

In 1995, the World Trade Organisation put in place the Trade Related Investment Measures (TRIMs), as a response to concerns from some member countries about the interruption in their foreign investments as a result of protectionist measures by developing countries (Ado, 2013). The TRIMS, which apply to all WTO members, prohibit member countries from instituting policies such as local content policies and other protectionist policies (Ado, 2013; Warner, 2011). There are however exceptions to this rule for transitioning and least developed countries. Ghana is considered a developing country. Ado (2013), takes a tough stance on this argument by arguing that the developed countries like the United States who proposed this as a WTO agreement had benefitted from local content requirements in the past and in fact, relied on it to build their now developed countries (Ado, 2013).

2.5 Summary of Literature

In conclusion, literature on the definition of local content draws varied opinions and answers. However, all experts seem to agree on the fact that the use of LCPs should in one way or the other bring value addition to the country it is being introduced in. Governments also pass content requirements to increase the benefits of a resource to their citizens and avoid the resource curse. The arguments both for local content policies buttress the point that LCPs if properly spelt out could go a long way to benefit a nation. On the other hand, the arguments against local content policies must be considered and measures taken to avoid becoming victim to them.The benefits of LCPs should not be sought for the short term because to reap benefits for future generations, LCPs are strategic policies which need adequate time to mature and bear fruits.

3: Methodology

3.1 Research Design

This Methodology discusses the research design for this study. Research design is essentially a plan for detailing the methods and procedures for collecting and analysing the required information. A good research design should answer the research question "as unambiguously as possible" (NYU, n.d.: 9). The research question for this paper is an enquiry into how well suited Ghana's local content legislation in oil and gas is to provide the desired outcomes and make the right impact. This research is therefore a descriptive one to explain and measure the effectiveness of the legislation. It is expected that the insights given will add immeasurably to knowledge and shape the nature of how the legislation is further implemented (NYU, n.d.).

Based on the research type, a cross-sectional design type was chosen as the best method to answer the question. A cross-sectional design is one that involves collecting data from different sources that represent part of a whole to determine patterns (Bryman & Bell, 2007:55). This suited the purposes of this research because the oil and gas industry is fragmented into many different sections to form a whole industry. Research is said to have used qualitative methods when data is not recorded numerically (Trochim, 2005). Qualitative data was collected as both primary and secondary data. Primary data was gathered in the form of in-depth one-on-one semi-structured interviews with various stakeholders in the upstream oil and gas industry. Secondary data gathered was in the form of data collected by other researchers. These methods are explained further below.

3.2 Research Scope

3.2.1 Target Population

The target population for this study are various stakeholders in the upstream sector of the oil and gas industry in Ghana. This is because the local content regulations directly target players in that sector.

3.2.2 Description of Study Area

The study focuses on the oil and gas industry in Ghana. This industry comprises of three sub-sectors; upstream activities, midstream activities and downstream activities. The upstream sector deals with the exploration, development and production of oil and gas from oil or gas fields. The midstream sector involves the transportation of the resource from the fields to a refinery or gas processing plant. Downstream activities focus on the refinement of crude oil and the distribution of the petroleum products to consumers.

3.3 Description of the Sample, Sub-samples and Sub-sample Sizes

The sample area for collecting primary data was Ghana. The sample for secondary data was not limited to any part of the world. The primary sample comprised of the Petroleum Commission of Ghana, as the implementers of the local content legislation and the regulators of the upstream petroleum environment in Ghana, and other stakeholders in the oil and gas industry. This research focused on the upstream petroleum industry because that sub-sector is a direct target of the legislation.

Because the design type was a cross-sectional one and required a cross-section of players in the sector, the sub-sample included an International Oil Company (IOC), a local SME, a policy expert, a foreign supplier to the industry, and the implementers. The multinational company was chosen based on their current level of activity and stakes in the industry. The local SME was selected because they are one of the few Ghanaian companies providing engineering services in the industry. The foreign supplier was selected based on the kind of supply services they provide to the industry. The policy expert was chosen because of their organization's expertise and outspokenness in oil and gas policy matters in Ghana.

3.4 Data Collection

3.4.1 Research Instruments

The research instrument used to collect primary data was interviews. Interviews, specifically semi-structured interviews, were chosen because this data collection procedure allowed the flexibility to explore themes that dug deeper to answer the research question. This method also allowed new ideas to be brought up and explored during the interviews. The different sections of the sample required different interview guides to answer the research question. These different guides had similar themes. All interviews lasted for an average of 45 minutes. Samples of the consent form and interview guides are attached in Appendix 2 to Appendix 5 respectively.

3.4.2 Data Collection Procedure

The data collection procedure used for this paper was purposive stakeholder sampling (primary procedure). Purposive sampling is when one's own judgement is used to select respondents who will best enable the answering of the research question (Jewell & Hardie, 2009:62). The specific kind of purposive sampling used in this research was stakeholder sampling. Stakeholder sampling involves "identifying major stakeholders who are involved in designing, giving, receiving or administering the programme or service being evaluated, and who might otherwise be affected by it" (Palys, 2008:697). Purposive stakeholder sampling was used for this research because the local content legislation specifically targets the oil and gas industry and being such a closed loop industry, strategic choices had to be made to select companies whose operations are directly affected by the legislation.

3.5 Data Analysis

Data analysis is the process used to interpret data collected and make meaning out of it (LeCompte and Schensul, 1999 as cited in Kawulich, n.d.). According to Patton (1987), there are three stages of analysis. First, data is organized, then summarized and categorized and finally patterns and themes are identified and linked (as cited in Kawulich, n.d.). The approach used to analyse the data collected for this research is content analysis. Content analysis is the "systematic analysis of text documents, to identify patterns in text" (Trochim, 2005). Data analysis for this paper was done by a thematic analysis of text. Data was organized into various themes from field interviews and secondary research, patterns were identified and links were drawn with literature reviewed. The main tool used to identify themes was adopted and modified according to the Policy Implementation Assessment Tool, by Bhuyan, Jorgensen & Sharman (2010), which suggests that effective policy implementation is a relationship between several dimensions. For this research, the themes used in analysis are

i. The alignment and content;
ii. Social, political, and economic context;
iii. Leadership for policy implementation and;
iv. Stakeholder involvement in policy implementation

4: Data Findings, Discussion and Analysis

Undoubtedly, the success of any policy or legislation depends on how well it is carried out. With the assumption that policy objectives are in line with their intended outcomes, the weight of the success of the policy rests on the implementation. This Data Findings, Discussion and Analysis section presents the findings from data collected from secondary research and primary data collected from interviews with five stakeholders in the oil and gas industry in Ghana. This Data Findings, Discussion and Analysis section also identifies common trends in data collected, and analyses it by linking it to literature reviewed. The first part of this Data Findings, Discussion and Analysis section assesses the alignment of LI 2204 with intended goals and objectives. The second section determines the practicality of the local content legislation in realizing the desired intended goals and objectives of adding the maximum value to the Ghanaian economy and citizens. The third section addresses the research objective that seeks to investigate how this particular legislation will be of benefit to Ghanaians. The Data Findings, Discussion and Analysis section uses secondary data collected to highlight how other nations have implemented their local content strategies. The fourth objective is addressed in section 5 Conclusions and Recommendations.

4.1 Determining the Alignment of the Local Content Legislation

In designing local content requirements, governments and policymakers need to ensure that there is indeed a need for content requirements and the strategy chosen to address the shortcoming corrects it adequately (Tordo et al., 2013).

Trends from data gathered indicate that despite the fact that majority of the stakeholders interviewed believe that LI 2204 addresses key local content issues with measurable outcomes, they expressed less optimism about the targets being achieved within the timeframes specified. A summary of responses are in Figure 4.1 below.

Countries continue to depend on setting “ambitious” local content targets in the upstream petroleum sector, along with requirements of domestic preference of goods and services as a means of developing national industrial capabilities (Tordo et al., 2013:57). All focus seems to be turned to achieving local content levels, with little regard for how to increase the competitiveness, capabilities and skills of the local industry and promote sustainability (Tordo et al., 2013).

During the data collection process, it was revealed that not all key stakeholders agree on the goals and strategies being used to achieve local content. A better way of measurement would be the measurement of absolute values instead of measurement in percentages. For example in terms of employment, respondents rationalized that being a small industry compared to other oil producing nations like Nigeria and Angola, it would be more meaningful for a country to set an objective to achieve a 100,000 jobs in the industry with 50% local content than to aspire to achieve 100% local content when there are only 50,000 jobs available. In other words, the focus should be on creating the largest number of jobs for Ghanaians, rather than on percentages.

There seems to be some disconnect between some of the targets of the legislation and reality which will make it almost impossible to achieve some of the targets. For instance in Schedule 2, Part 2, which specifies the specific targets to be achieved, item 2.8, despite clearly specifying that drilling risers cannot be manufactured in Ghana, at least not yet, specifies that within 10 years, 100% of risers used in the industry should be locally sourced and made. Though not impossible to achieve, it may take more than 10 years for a local company to specialize and competitively manufacture this equipment. If this happens to be the case, the Government, as the largest financial beneficiary may also be the largest funder of any cost over-runs due to the lack of competitiveness.

Furthermore, Schedule 1, which specifies the targets to achieve in Feed, Detailed Engineering and Other Engineering Services, requires that between 60% to 80% of these services be performed by a local company. Currently, there is only one wholly Ghanaian owned company performing those services, which may not be able to meet the high demands of the industry if the laws are to be strictly adhered to.

Moreover, the regulations in LI 2204 do not apply to foreign companies already in the industry. This is because Petroleum Agreements previously signed for periods of 20 years have stabilization clauses which make them immune to changes in industry regulations for the duration of their contracts. The laws of Ghana are not retroactive and therefore do not apply to prior agreements. This makes it difficult to enforce the regulations on several companies already in existence. Despite this case, most of these companies are practicing local content strategies with detailed local content plans incorporated within their strategies.

4.2 Investigating the Practicality of the Legislation

4.2.1 Social, Political and Economic Context

Respondents were of the view that the current social, political and economic context of the country does not support the successful implementation of the local content legislation. Social issues such as unemployment and poverty and political factors such as changes in government and discretionary powers exercised by the acting Minister of Energy in the legislation were identified as potentially affecting the successful implementation of the local content agenda. Economic realities such as the size of Ghana's market compared to other oil and gas producing nations and the competitiveness of local companies were also considered to impact overall legislation outcomes. However, the degrees to which these will have an impact varied from the points of view of the various stakeholders. This is summarized in Figure 4.2.1a.

Social Factors

Total data analysed showed that social factors are moderately likely to affect the implementation of the LC legislation. However, stakeholders did not believe threats from unemployment and poverty could have such a big impact with adequate monitoring. The issues identified as possibly arising are establishment of local companies by locals solely for the purposes of bidding contracts and projects at premium prices because of the allowance of the legislation for a 10% preference ceiling, and in turn passing them off to more competitive companies and skimming off the difference for themselves. Another way will be to have a company set up and having individuals present themselves to foreign companies as equity partners and fulfilling that requirement in the legislation. These methods may be employed to escape unemployment and poverty. They could cause some impact to the objective of the legislation to increase local content levels, and affect the effective implementation.

Political Factors

The threats of political factors affecting the implementation of the legislation were deemed to be moderate according to the majority of data collected. Political factors such as change of government were considered as having minimal impact on the implementation to the legislation because of Ghana's democratic credentials over the years and the fact that the body responsible for implementation, the Petroleum Commission, is somewhat independent from the

Government. Nevertheless, some stakeholders raised concerns over the seemingly excessive discretionary powers given to an acting Minister of Energy to waiver local content requirements in any case. This situation creates room for the perception of corruption.

Furthermore, the World Trade Organization's agreements on Trade Related Investment Measures (TRIMs) and the General Agreements on Trade in Services (GATS), prohibit member countries from instituting local content requirements because these are anti-trade and discriminatory to free trade (Warner, 2010). There are however some exceptions for transitioning, least developed nations (Ado. 2013). As a middle income developing nation, the rules of the TRIMs and GATS apply to Ghana (Suleman, 2012). In spite of this, Ghana's Parliament still went ahead to pass the legislation. A threat to the implementation of the local content legislation in this case will be noncompliance of the legislation by a company using the excuse of Ghana's violation of the agreements (Suleman, 2012).

Economic Factors

The current economic context of the country and the oil and gas industry is one that is not very favourable for local companies that are expected to be at the receiving end of the local legislation, and this may affect the effectiveness of the legislation. Economic factors such as the size of Ghana's market[4], competitiveness of local companies, the lack of capabilities, technical know-how and lack of capital were discovered to be factors that could potentially hamper the effective implementation of the local content legislation.

The size of a market in a nation instituting local content requirements is a very important factor. Depending on how aggressive and ambitious the target requirements are, this factor determines if it is profitable for a foreign company to remain in a market or attractive enough for a foreign company to enter the market (Warner, 2011). The size of Ghana's market is a fraction compared to other markets like Nigeria and Angola. The requirements of the legislation, if followed to the letter make it obligatory for foreign companies to incorporate various levels of only locally made goods and services. Inability to follow the requirements lead to fines and in certain cases, imprisonment for offending companies, according to the legislation. For a

[4] Size refers to the overall revenues for service companies, as well as the frequency / predictability of contracts awarded.

company supplying engines and machines to power the oil rigs and drilling wells, this will mean that they have to produce these equipment in Ghana. Taking the case of a multinational company that produces these machines in only two locations in the world, it will not make business sense to set up a factory in Ghana to solely produce these because of the comparable size of the market. After a cost-benefit analysis, the conclusion may be to seek business in more favourable and attractive markets. With the Jubilee Field currently being the only actively producing field, Ghana does not have the size to mandate requirements as prescriptive as LI 2204. Based on the size of the market, foreign investors do not really favour local content requirements as this may mean an interruption in their investments and their returns (Ado, 2013). This may have an effect on the quality of investors and companies coming to Ghana.

According to Warner (2010), the "golden thread of procurement is the Competitiveness 'Principle' Award", and this rule says that **"**Give preference to local contractors and locally manufactured materials and equipment so long as their performance, quality and time of delivery are competitive with international performance and prices*"* (Warner, 2010:5). Data gathered showed that local firms are not competitive enough to meet the demand of foreign companies who are expected to include local content in their operations. Competitiveness is the comparative ability "and performance of a firm or country to sell and supply goods and/or services in a given market" (Warner, 2010:4). Non-competitiveness of local companies places a premium on local goods and services, encouraging consumers to go for more competitive products (Grossman, 1981, as cited in Veloso, 2006).

There are real challenges and barriers to active SME participation and competition in the industry, despite the passage of the local content legislation. As already mentioned, the oil and gas industry is a very capital intensive one, and the lack of availability of funds is a major threat to entry for local companies. For those who are able to scale this wall and enter, they are soon faced with other challenges which threaten their ability to operate viably in technical operations. This places a premium on the goods and services they produce, as pointed out. Content requirements instituted to benefit them may do more harm than good. This is because with a preference for their goods and services, there is the possibility that they become over reliant and lazy and may never become competitive (Grossman, 1981; Veloso, 2006; Tordo et al., 2013). These may also result in overall welfare losses for the entire citizenry as costs incurred by companies are push on to them and they become worse off (Grossman, 1981).

Data also confirmed Esteves and Barclay's (2011) assertion that local content requirements have two-fold benefits for both companies and communities alike. It is in the interest of foreign companies in Ghana to incorporate local content, and most of them already have high levels of local content in terms of staff and suppliers and providers of non-technical goods and services. Data indicated that local capacity and competitiveness, if trained well, becomes cheaper and more cost effective for the buyers in the long run, allowing foreign companies to have easily accessible and cheaper supplies close to their value chain (Veloso, 2006).

Again, the nature of the industry requires highly skilled labour to undertake most jobs and the reality is that many local companies lack the technical know-how and capacity to undertake these projects. Even if able to break into the industry, local companies are unable to continuously fund the sophisticated equipment required to stay in the industry. When a local company is able to break these barriers, they may soon realize that there not enough local talent equipped to man the software and equipment. At some point in the oil and gas value chain, foreign expertise needs to be sought because there is just not enough local know-how and expertise to compete in the industry. This reality brings to bear the failure of the educational system to equip enough locals for the oil and gas industry. The answer to low local participation in the oil and gas industry may not be setting local content requirements but may go beyond that to require adequate training for an unprepared labour force (Tordo et al., 2013). The answer may even lie in making structural changes to a country's educational system to provide optimal outcomes (Tordo et al., 2013).

Despite the challenges, there are indications that, it has not all been bad news. Since discussions of legalising a local content policy began in Ghana, there has been an improvement in industry in terms of the reaction of IOCs toward local SMEs. Whereas before the response from bigger companies when approached for business was a lack of interest, now, there seems to be some consideration and some attention being paid to local companies, according to the personal experiences of the local SME studied for this research. IOCs are now more willing to select credible SMEs to do business with and at times, provide mentorship.

There has been more collaboration between IOCs, subcontractors and local companies and more joint venture partnerships. This may be attributed to the prerequisite in the law that requires foreign companies to have at least 5% local content when entering the market and give preference to local companies in the award of contracts. The SME has seen an increase in the number of staff 4 people to 14 people, including 8 people employed on a contract basis. This is to meet the demand of the many opportunities that have come their way. This finding is closely related to Ihua's (2010) research, which also found that a LC resulted in more contract awards to SMEs in the Nigerian industry. However, as Ihua (2010) points out, more contract awards and number of people employed in already existing SMEs does not necessarily translate into higher SME participation in the industry or solve the issue of low local content and local participation. This could be attributed to the fact that local companies still lack the capacity required to undertake many projects and these are still award to foreign companies (Ihua, 2010). In cases where there are local firms able to perform the contracts, they may still be awarded to foreign companies because of time and budgetary constraints, as the locals may not be able to deliver within time and budget, and "premiums and delays become the norm" (Warner, 2010:10). These may cost IOCs a lot of money they may not be willing to loose (Calista, 1994; Klein & Knight, 2005, as cited in Bhuyan, Jorgensen & Sharman, 2010).

To address the issue of technical know-how and capability and the Government, with funding from the Jubilee Partners also set up the Enterprise Development Centre (EDC) in Takoradi in 2013, to support SMEs entering the sector to position themselves to take up the rising opportunities. The Jubilee Partners also established the Jubilee Technical Training Centre at Takoradi Polytechnic, to train technicians for the Industry. Also, the GNPC has set up the GNPC Oil and Gas Learning Foundation to ensure the training of citizens of Ghana for the development of national capacity in all aspects of petroleum operations. This foundation provides scholarships to Ghanaians who wish to study oil and gas related courses in Ghana and abroad. It is however a requirement for them to return and work in the Ghanaian industry upon graduation. There is also a Human Resource Development Planning Committee, whose responsibility is to assess the gap between the expertise needed by industry and what is currently available and ensure that Ghanaians are being trained to fill these opportunities.

4.2.2 Leadership for Implementation

Strong leadership and commitment is important to the effectiveness of the implementation of Ghana's legislation (Bhuyan, Jorgensen & Sharman, 2010). The policy and legislation were formulated by the Ministry of Energy but handed over to the Petroleum Commission for implementation. As Nakamura and Smallwood (1980) and Stover and Johnston (1999), point out that this is the norm rather than the exception and it is normally done to facilitate decentralization.

To facilitate implementation, the PC is collaborating with the Ghana Immigration Service, responsible for issuing work permits to foreign nationals and foreign companies, to ensure that the companies comply with regulations such as having 5% local equity at commencement. For individuals, the Commission is consulted to ensure that the skills for which they are being employed cannot be fulfilled by a citizen. The potential shortfall in this arrangement however is that inefficient implementation could result in IOCs keeping highly-skilled labour out of Ghana, as modern technology does not always require physical presence of specialist employees.

The PC also has collaborations with the Ghana Revenue Authority to ensure that companies pay the right taxes and also with the Registrar Generals Department to ensure that the companies are credible. There are also collaborations with universities to develop human resource syllabi, curricula and streamline careers to fit the gaps in the education system.

These implementation measures may look very good on paper, but may not be as easy to implement (Love, 2004). It may be difficult to determine the credibility of companies right away, and with the lack of accurate databases in Ghana, it will be determine which Ghanaians have the right skills to carry out necessary projects.

According to the legislation, local content plans are expected to be submitted to the PC before engagement in any petroleum activity for approval. Long term local content plans are also expected to be submitted and renewed every year to include planned activities to track local content levels. According to the Commission, monitoring and evaluation will be done on a case by case basis, so the same yardsticks are not used to measure companies with different capabilities.

“Effective implementation also requires planning and the efficient mobilization of resources” (Bhuyan, Jorgensen & Sharman, 2010:8). To carry out the successful implementation, the PC needs to be equipped to carry out its activities. In order to monitor the activities of companies, new software and monitoring strategies are required. The software for the monitoring of Ghana’s content is still in development, even though the implementation of the legislation is in full force. The software is modelled using a common qualification system to ensure transparency. A web portal is also in development to allow Ghanaians upload their résumés for jobs. This will create a database of Ghanaian skills available for employment and the transfer of know-how.

The Petroleum Commission is very determined to ensure that the local content legislation is carried out to the letter and have developed various plans and strategies to facilitate implementation. However, data collected and research indicates that to an extent, not all the strategies may be easy to implement or practical and this may affect implementation of the legislation in the desired time frames.

4.2.3 Stakeholder Involvement

The successful implementation of a policy also depends on how well various stakeholders work together in ensuring this. This is important because various stakeholders contribute different perspectives, skills and resources that aid successful implementation (Altman & Petkus (1994), as cited in Bhyuan, Jorgensen & Sharman 2010). Support or opposition of stakeholders in the formulation and implementation of a policy could greatly hinder or facilitate implementation. The main stakeholders studied in this research are an IOC, an SME and secondary data on Civil Society Organizations (CSOs) and consortium of E&P companies in relation to the legislation.

Data gathered indicated that, there was not enough stakeholder involvement in the formulation of the legislation. IOCs through the E&P forum, a shared forum of upstream IOCs, expressed their discontent at what seemed to be the lack of dialogue between IOCs and the Government in formulating the policy and subsequently passing it into law. Members of the E&P forum after going through draft regulations were asked to submit response to the Ministry of Energy, which was complied with. Some of the concerns raised were about the mandatory local equity, period for compliance, some of the required targets and the penalties like imprisonment for violations and made alternative recommendations (E & P Forum, 2013). According to them, parts of the regulations will make it difficult for the nation to attract the much-needed foreign capital, technology and expertise to develop the industry (Larbi, 2013). It was pointed out that despite the size of the markets, the levels of local content achieved in employment in the industry in the space of time were strong achievements. See Appendix 6 for current levels in local content in IOCs and a summary of concerns raised. Also all members of the E&P Forum already had detailed local content plans in their Field Development Plans that were being implemented (E&P Forum, 2013). Despite these concerns, the legislation was passed without feedback on why their concerns were not considered.

Meanwhile, CSOs, who have been advocating for such a legislation to secure the country's oil and gas resources, strongly support the legislation. From a news article gathered on the Civil

Society Platform on Oil and Gas (CSPOG), the group has a general distrust toward the concerns of the E&P forum and IOCs (Larbi, 2013). They believe that IOCs "intend to adulterate the content of the bill in a way that would deny Ghanaians opportunities" (Larbi, 2013).
On the other hand, despite the fact that SMEs are elated about the opportunities available in the industry now by virtue of the legislation, they are concerned about their lack of capacity to take up projects regardless of the legislation.

The apparent lack of consultation of companies operating in the industry may have stemmed from the lack of distrust between both policymakers and the foreign companies. However, if the effective implementation of this legislation is expected to materialize, both sides will need to sit down at some point and have objective discussions on the way forward. The legislation cannot be implemented in isolation without consideration from stakeholders.

4.3 Benefits to the Local Content Legislation

It is important that Ghana obtains as much benefit from her hydrocarbon resources as she can before her reserves run out. Field research highlighted that the petroleum industry, aside being a very capital intensive one is also closed loop that does not have the ability to employ a whole lot of people, or have the ability to create very direct, significant impacts in the life of Ghanaians (Tordo et al., 2013).

This unfortunately means that graduates, from the many schools claiming to award various diplomas in oil and gas related courses that seemed to have sprung up all over the country overnight, and the expectation of many Ghanaians to be directly impacted from the oil and gas revenues may not be realized as they had hoped. There are however several other ways the benefits from the resource will manifest in their lives. The avenues that are evidently being used in the industry now is through backward links and financial links, two of the types of sector links suggested by Hirschman (1958, as cited in Tordo et al., 2013).

Backward links are being created mainly through the supply of non-technical services to employees in the industry. The use of catering services, education facilities and services by dependents of employees in oil and gas companies, real estate services and the like; virtually anything workers of oil and gas companies spend resources on is considered as a backward link of the industry (Warner, 2011). Through taxes paid to the government and revenue and royalties from exploration and production activities are financial links created by the industry.

By making the right choices about what to invest in, like in education and agriculture, the government can ensure that the “big push” theory is fulfilled and the oil and gas effects are trickled down to the grassroots (Iimi, 2006).

Moreover, the gas from the fields could also be used to create a more reliable source of electricity supply for the country, and put an end to the perennial electricity crisis. Also, a more efficient management will result in a lesser need to import crude oil, and reduce the costs at the pump.

4.4 Local Content Strategies; The Successes and Challenges

Policymakers approach LCPs using different strategies or a combination of strategies to promote local content development (Tordo et al., 2011). Some of the directions LCPs take include setting regulations for procurement procedures and processes, putting in place fiscal incentives, and investing in business-friendly infrastructure (Warner, 2011). LCPs can also focus on investing in a host nation’s human resources by setting regulations for staff recruitment and training and concentrating on the “social investment and community-based supplier development programmes” (Warner, 2011).

According to Tordo et al., (2011), governments can also decide to focus their LCPs on creating regulations to ensure that production companies favour the use of local goods and services through contractural agreements, protectectionist measure that domestic companies are favoured in terms of taxation policies and regulations that promote the transfer of technology from multinational companies to local companies (Tordo et al., 2011). Nations may also choose to grant concessionary and licensing priviledges to domestic firms or foreign companies with some level of domestic ownership (Ado, 2013). Other strategies demand the mandatory incorporation of foreign companies and the direct intervention of government in the sector through state-owned enterprises (Tordo et al., 2013). The strategies of one very successful implementer of local content,Norway and Nigeria, which has faced local content challenges are given to under local content policies in more detail.

Norway

Norway has long been hailed as a local content success, as evident by the several mentions it gets in oil and gas local content literature. Norway was the second country after the UK to formally adopt a LCP in 1972 (Ado, 2013; Tehrani, 2006). The Norwegian policy at passage focused on the preference of local goods and services to build up supply industries, the transfer of knowledge to enhance research and development, and the setting of a fund to spend proceeds only from 1992 (Tehrani, 2006).

In a 2008 working paper report to Ghana as documentation on Norway's experience, Heum (2008), explained that Norway had not implemented its strategy any differently from the way other countries have implemented it, however, the success of Norway's local content policy model is as a result of its strategy to build local content through industrial competencies and capabilities that could enable domestic companies compete internationally (Heum, 2008). He however conceeded that the country may have benefitted from being a developed and industrial country before the production of oil and gas started (Ihua, 2009; Heum, 2008). The Norwegians did this by staying dedicated to their basic objective of enhancing local knowledge and gradually transfering technological know-how to competitive levels (Heum, 2008). Instead of rapidly developing its resources by attracting foreign expertise like the UK had done, they chose to develop the sector more slowly to allow their service sector to develop (Tordo et al., 2011).

After the discovery of oil and gas, a structure was determnined based on functional responsibilities of policy making, technical control and resource management and commercial participation. Three organizations were then created to cater for each of the functions after Parliamentary approval (Heum, 2008). The policy making function, the Ministry of Petroleum and Energy, drew up a policy that opened oil concessions to both local and foreign companies (Heum, 2008). The policy rather focused on how the companies will incoporate local content in their activities and required that the foreign companies will set up fully operational subsidiaries in Norway and employ locals (Heum et al., 2003). The policy also did not set a local content target but required that local suppliers be selected if they met competitive international standards (Heum et al., 2003). Among others, the players in the sector were allowed to operate with very little government intervention (Heum, 2008).

Nigeria

In what Ihua et al. (2009) call a textbook definition for local content, the Nigerian Local Content is "the quantum composite value added or created in the Nigerian economy through the utilization of Nigerian human and material resources for the provision of goods and services to the petroleum industry" (Ihua et al., 2009).

Despite the fact that Nigeria discovered oil in 1956 and subsequently began production, all attempts at implementing various local content policies that were passed were futile and ‘mere paperwork’ (Balouga, 2012). It was not until the early 2000s that the country actively started exploring ways to ensure that a local content policy was implemented (Balouga, 2012; Ihua et al., 2009; Adefulu, 2008).

The Nigerian Content Policy passed in the early 2005 (Adefulu, 2008) sought to drive growth through capacity building, sustainable capability, product deliverability systems and comparability and empower indigenous companies (Ihua et al., 2011). One major policy target was to achieve 45% local content by 2007 and 70% by 2010. However, when the Nigerian National Petroleum Corporation (NNPC) reported in 2008 that the policy had achieved some level of success by increasing local content to between 35% and 40%, various Nigeria media refuted the claim, citing evidence that local content was actually between 15% to 20% (Ihua et al., 2011).

Despite this discrepancy in figures, a study conducted by Ihua et al. (2009) among some SMEs concluded that even though the policy created some impact by way of more contract awards, more job creation and partnerships. However, industry guidelines were constantly being changed, as there were two different government agencies, responsible for implementing the policy, creating blurred lines of authority and resulting in some level of instability (Ihua et al., 2009).

In 2010, the government signed into law, a new policy known as the Nigerian Oil and Gas Development Law 2010 (Balouga, 2012). This law, fashioned after the Norwegian model, aimed at ironing out issues within the first model (Balouga, 2012). In this new policy, “exclusive consideration” is given to service companies which demonstrate Nigerian ownership of equipment, personnel and capacity to execute jobs. It also provides a template for measuring local content and spells out duties of the institutions, responsible for the effective implementation of the Nigerian content (Balouga, 2012).

4.5 Summary of Data

Respondents and secondary data collected recognized that the legislation addressed key issues and objectives, some aspects of the content of the legislation are misaligned with the realities in the social, economic and political environments of the legislation, which could affect the successful realization of the legislation in the desired timeframes. While recognizing that the legislation could have significant benefits for Ghana and trickle down benefits to other sectors, a lot still needs to be done to ensure that this happens.

5: Conclusions and Recommendations

5.1 Conclusions

The question that this research sought to answer was how effective the implementation of Ghana’s Local Content Legislation will be in fulfilling the intended goals and objectives of directing benefits of the oil and gas resource to the Ghanaian economy and Ghanaians as a whole. The legislation is expected to do this through the creation of jobs, education, skills transfer and expertise development, transfer of technology and know-how and active research and development programmes. It is also expected that there will be support for local businesses by patronizing local goods and services competitively and requiring equity participation of indigenous companies in oil and gas operations. Data was collected using four objectives.

There is however a seeming misalignment and disconnect between the instrument and its intended outcomes. Looking at the current context and situation of the Ghanaian industry, it will be almost impossible and impractical to achieve the levels of local content desired in the timeframes specified. This is as a result of the fact that local companies are not strategically positioned to take up the numerous opportunities abounding in the oil and gas industry. They lack the financial and technical know-how and skills to undertake complex projects. Striving to stay in line with local content requirements may be costly for IOCs.

Findings on the monitoring and evaluation strategies and methodology are not clear or entirely in place, and have not been duly communicated to major stakeholders. Also, there is a lack of proper communication between the Petroleum Commission and various stakeholders and this may affect how successfully the legislation is implemented.

The main conclusion reached from findings and literature is that nature and content of the strategy chosen to implement local content may greatly hinder the success of the legislation, and there is a lot more that can be done to facilitate implementation.

5.2 Lessons from Norway and Nigeria

Studies of local content implementation in Norway indicate that they took a more gradual approach to developing local content. They did not impose local content requirements on companies, when they knew that their capabilities for competitiveness were not developed. Mandating foreign companies to mentor local ones ensured knowledge and technological know-how was transferred to the Norwegian firms. It was only after that did they institute mandatory levels of local content. Nigeria, on the other hand, formalized their local content aspirations a long time after oil production began. By not ensuring that knowledge and know-how were passed to local companies, when they did eventually set-up requirements, the local firms were still not competitive enough, despite being in the industry for a while. In the beginning, the regulations required very ambitious and vague targets for local content and this did more harm than good. It was only until 2010 when they decided to adopt the Norwegian model did they start to see improvements in their industry. This also suited them because by this time, the Nigerian oil industry had matured and could work with the targets set.

Contrary to Ado's (2013) assertion that many industrialized nations used local content requirements in achieving development, and hence should be allowed; a closer look will show that the social, economic and political contexts of these nations were far different from the situation in the developing African nations instituting these policies now. Ghana's legislation resembles the model Norway adopted in maturity, and Nigeria's current model. A better approach for the country to take now would be to avoid setting requirements that are more consistent with mature regimes and ensure that local companies are better positioned to learn and increase competitiveness.

5.3 Recommendations

There is a lot more that can be done to improve the effectiveness of Ghana's local content legislation. Recommendations drawn from the analysis of this research are targeted at the various stakeholders in the industry; the Government of Ghana, through the Petroleum Commission; International Oil Companies and multinational companies and local companies.

The Petroleum Commission

1. First of all, the Petroleum Commission should claim ownership of LI 2204 and take into consideration the social, political and economic context of the country, of the oil and gas industry, and the concerns of the companies supposed to implement local content and make reforms to the legislation accordingly.
2. The Petroleum Commission should be more open to dialogue and communication with stakeholders in the industry. A healthy relationship will facilitate a more effective implementation.

3. Closely related to the above, the Commission should communicate the various implementation and monitoring and evaluation strategies to all stakeholders to ensure that they comply accordingly and leave no room for excuses.
4. IOCs and other companies whose agreements are not affected by the legislation should be incentivized to apply the legislation. For example, through tax breaks for various levels of local content.
5. The discretionary ministerial powers to waive local content requirements, spelt out in the law should be made more transparent or better still transferred to the Commission to ensure transparency and perceptions of corruption.
6. A key finding of this research was the inability of locals to meet the skills and expertise required by the industry. The Commission needs to build stronger collaborations with educational institutions and make necessary structural changes in the system to ensure that locals can meet the demand for technical skills and know-how.
7. Despite the existence of the EDC, considerations need to be made to create a more favourable financial climate for SMEs, for example the creation of special loan or funding packages to grow their businesses and the availability of tax concessions, similar to what IOCs enjoy.
8. Also a more practical way to ensure technology and skills transfer is through the establishment of a mentorship programme in collaboration with IOCs and multinationals so local companies may learn quicker.
9. Finally, the Government, through the Petroleum Commission, needs to manage the expectations of Ghanaians and provide public education on the extent and ways through which the oil revenue could be of benefit to avoid agitations and unrest in the future because of high expectations not being met.

IOCs

1. IOCs should press for better communication and dialogue with the Petroleum Commission and raise legitimate concerns where necessary for reform of impractical and unrealistic requirements.
2. They should also strive for greater collaborations with SMEs and local companies to provide mentorship to transfer knowledge, technology and skills at their own pace.

SMEs

1. Despite the fact that funds are not readily available, SMEs should be prepared to raise funds to invest and reinvest in the training and development of personnel, technology and skills needed, so as to be more attractive business partners. This may however be risky because unpredictability of contract awards.
2. Opportunities abound in the industry. Local companies should focus on building credibility and living up to the highest ethical standards to be more attractive.
3. They should also thoroughly investigate the background of potential partners so as not to be taken advantage of.

5.4 Recommendations for Further Research

As a legislation that was recently passed into enforcement, there are several areas to explore in further research. Individuals or groups interested in exploring the subject of local content in the oil and gas industry could conduct an impact assessment study after 5 years to study the effects of the policy. Also, during this research, there was little literature found on the effects and impact of social and political contexts on local content implementation, even though there was countless literature on the economic effects and impacts. Research into those areas will make meaningful contributions to literature.

5.5 Summary of Research

The conclusions reached from analysing findings show that the rationale behind instituting Ghana's local content requirements is commendable. However, implementing them in the current social, economic and political context of the petroleum industry will not be very effective. Implementers of the legislation need to take current industrial conditions, legitimate concerns and recommendations into consideration and engaging stakeholders on all fronts in ensuring that Ghana comes out tops in managing the oil and gas resource.

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