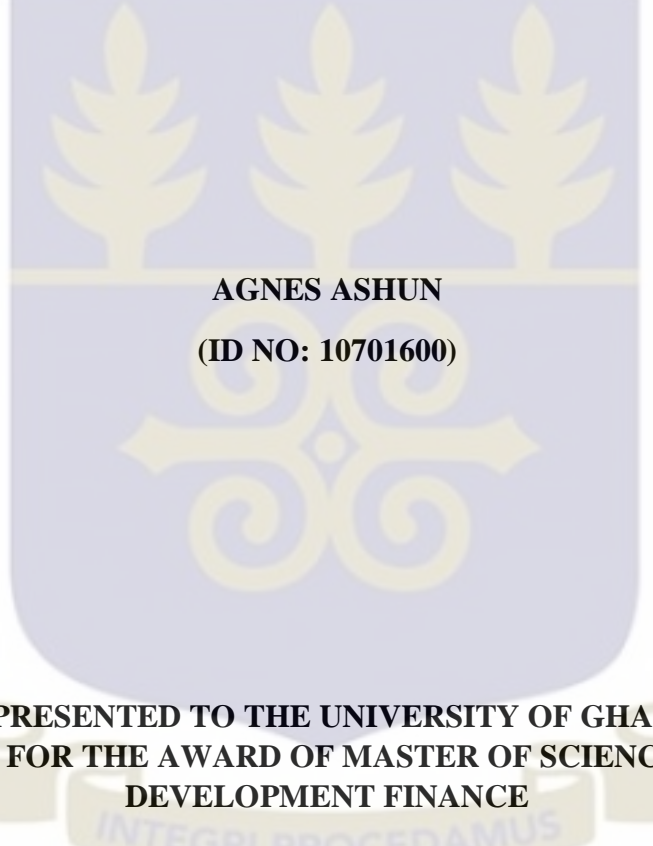


UNIVERSITY OF GHANA

**LOCAL CONTENT POLICY AND VALUE CREATION: THE CASE OF THE
UPSTREAM OIL AND GAS EXTRACTION INDUSTRY IN GHANA**

The image features a large, faint watermark of the University of Ghana crest in the background. The crest is a shield-shaped emblem with a light blue background. The top section contains three golden wheat stalks. The bottom section contains a golden decorative motif with a central cross and four curved flourishes. Below the shield is a golden ribbon with the Latin motto "INTEGRI PROCEDAMUS" written in blue capital letters.

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**A LONG ESSAY PRESENTED TO THE UNIVERSITY OF GHANA, AS PARTIAL
FULFILMENT FOR THE AWARD OF MASTER OF SCIENCE DEGREE IN
DEVELOPMENT FINANCE**

JUNE, 2019

DECLARATION

I do hereby declare that this work is the result of my own research and has not been presented by anyone for any academic award in this or any other university. All references used in the work have been fully acknowledged.

I bear sole responsibility for any shortcomings.

Signature:
Agnes Ashun

Date:

Signature:
Dr. Patrick Asuming

Date:

DEDICATION

This dissertation is dedicated to Mr. Samuel Awuku, my former boss, who supported me throughout my studies.

ACKNOWLEDGEMENT

I wish to acknowledge the following people for their support for me in acquiring my master's degree. They have supported me in diverse ways, these are, My parents Mr & Mrs Ashun, Mr. Samuel Awuku, Mr. Henry Nana Boakye, Mr. Justin Kodua Frimpong, Mr. Emmanuel Asigri, Mr. Vincent Yankey, Mr Michael Okyere Bafi, Hon Perry Okudzeto, Hon Isaac Asiama, Hon. George Andah, Hon. Shirley Ayorkor Botchway, Mr. Nana Kwame Addo-Frempong, Hon. Charles Owiredu, Mr. Peter Mac Manu, Hon Kojo Oppong-Nkrumah, Ms Sophia Korkor, Ms Maame Yaa Aboagye, Ms Amanda Amanfo, Dr. Charles Dwamena

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ABSTRACT

Ghana upon the oil discovery developed the local content policy to guide upstream oil exploration and production in 2011 with the passage of Petroleum Commission (PC) Act, 2011 (Act 821). Subsequently, the government developed a legislative instrument (L.I. 2204) in 2013 to support the regulation to promote local content. This study sought to examine the impact of the local content policy and value creation in the upstream oil and gas sector in Ghana. This objective was achieved using a descriptive survey among PC, International Oil Companies (IOCs) and Service Companies. A sample of 28 respondents were chosen using purposive sampling technique.

Firstly, the PC has highly upheld its mandate of monitoring compliance and enforcement of the law among both the IOCs and the Service Companies.

Secondly, the study revealed that the L.I. 2204 has helped to create value in the upstream oil and gas sector through job creation, skills, knowledge and technological transfers.

Thirdly, the study revealed that the components of the L.I. 2204 that promotes value creation are giving indigenous companies right to 5% equity in IOCs and giving IOCs at least 10% joint venture partnership with local service in the provision of goods and services.

Fourthly, the benefits of the local content policy to the Service Companies are supportive supervision provided by the PC and knowledge and skills gained in quality controls in the provision of goods and services.

The key challenge of the implementation of the local content policy is the high compliance cost and bureaucracies and delays in awarding contracts, resulting to inefficiencies in allocation of resources.

This has implications for improved government support to reduce the high cost of compliance among IOCs in order to enhance value creation in the upstream oil and gas sector, thus, ultimately, stimulating economic growth.

CHAPTER ONE

INTRODUCTION

1.1 Background

Ghana upon the oil discovery developed the local content policy to guide upstream oil exploration and production in 2011 with the passage of Petroleum Commission Act, 2011 (Act 821). The overarching goal of the local content policy and regulation is expected to promote value creation through job creation, skills transfer, local participation in procurement strategies and local participation in financial services to stimulate economic growth (Petroleum Commission, Ghana, 2017; Adedeji, Shaufique, Azwamani, & Law, 2015; Bellema Ihua, Abiodun Olabowale, Nnanna Eloji, & Ajayi, 2011; Esteves & Barclay, 2011).

The promulgation of a regulation is critical for the upstream oil and gas extraction since the international oil companies who usually invest in the oil and gas companies in the developing countries are likely to engage expatriate skills, goods and services at the disadvantage of the local economy (Mireftekhari, 2013). This creates political and socio-economic unrest, typical in the case of Nigeria in its Niger Delta, the hub of oil exploration and production (De Vita, Lagoke, & Adesola, 2016). According Mireftekhari (2013) the development of the local content policy is to ensure the needs of the local community is met through deliberate involvement and participation.

Aside the issue of value creation, the local content policy and its implementation is expected to reduce occupational hazards due to the riskiness of operations, which sometimes requires drilling up to 10,000 feet in water (Acheampong & Akumperigya, Offshore risk regulation: A comparative analysis of regulatory framework in Ghana, United Kingdom and Norway, 2018). According to Acheampong and Akumperigya (2018) regulation is the critical tool to minimize incidents and

accidents in upstream oil and gas extraction into order to promote both individual and public interest. This assertion is based on the fact the exploration of oil and gas has the ability to affect individual lives and the environment.

However, the contribution of the local content in promoting and sustaining value creation is empirically unknown, despite the continuous oil exploration and the design of oil projects in Ghana. Therefore, this study seeks to examine the components of the local content in the upstream oil and gas sector and its impact in fostering value creation in Ghana.

1.2 Research problem

Literature on local content development and its impact on value creation in both developed and developing countries is emphatic that local content involvement and participation in upstream oil and gas exploration and production has a positive influence on job creation and skill and knowledge training and transfer (Kazzazi & Nouri, 2012; De Vita, Lagoke, & Adesola, 2016; Heum, Kasande, Ekern, & Nyombi, 2011; Adedeji, Shaufique, Azwamani, & Law, 2015; Unam, Agorzie, & Asaolu, 2012; Bellema Ihua, Abiodun Olabowale, Nnanna Eloji, & Ajayi, 2011). Nonetheless, literature on the local content development and value creation is little or non-existent in Ghana since most of the works focused on Nigeria, a leading oil producer in the West African Sub-Region, thus creating a context gap.

In Ghana, literature related to the regulation of upstream oil and gas exploration is focused on occupational safety and well-being (Acheampong & Akumperigya, Offshore risk regulation: A comparative analysis of regulatory framework in Ghana, United Kingdom and Norway, 2018; Horbah, Pathirage, & Kulatunga, 2017). Acheampong and Akumperigya (2018) revealed that Ghana's regulatory framework for safety and well-being for the upstream oil and gas explorers are not self-regulatory compared to the offshore risk regulation in the UK and Norway. Horbah,

Pathirage and Kulatunga (2017) revealed that the support environment, safety priority, safety supervision, management of change and equipment maintenance have extrapolative impact on key accident risks in the upstream oil and gas exploration in Ghana. This means that literature on local content policy and value creation has received little or no attention in empirical studies, thus, creating an issue gap.

The issue gap is widened since there is little attention to examine the linkage between local content policy and value creation in other sectors of the economy, apart from the works Osabutey , Williams, and Debrah (2014) which revealed that there is a weakness in the transfer of knowledge and knowledge in the construction industry in Ghana among the foreign and the local companies. Osabutey, et al. (2014) explained that the weakness is due to lack of development policies to facilitate the knowledge and technology transfers.

In fact, it is worthy to note that the local content policy for the oil and gas sector is distinct since the local content requirements for the other sectors in the economy are law provisions without any legislative instruments (LI) to define the process of implementation of the law (IMANI, 2018). IMANI (2018) used qualitative research to establish that the law provisions in the mining sector, procurement strategies, investment promotions have a weakness in value creation in the economy. IMANI (2018) indicated that Ghana does not need new local content policies to strengthen the relationship with value creation, but an assessment of success and challenges of the existing local content policies.

Therefore, this study responds to the context and issue gaps by empirically examining the impact of the local content policy and implementation on value creation in Ghana's oil and gas sector.

1.3 Research purpose

The aim of the study is to examine the impact of local content policy and implementation on job creation and skills training. This is expected to enhance generalizations that will result to policy formulation and implementation to protect the local community while ensuring other industry stakeholders benefit from the skills training and capacity building in order to accelerate economic growth.

1.4 Research objectives

Broadly, the study seeks to establish the impact of local content policy on value creation in Ghana.

The specific objectives of the study are as follows:

1. To investigate the importance of the local content policy in the upstream oil and gas exploration in Ghana
2. To establish the relationship between the local content policy in the upstream oil and gas sector and value creation.

1.5 Research questions

The research questions for the study are as follows:

1. What are the features of the local content policy for the upstream oil and gas exploration in Ghana?
2. What are the significance(s) of the local content policy for the upstream oil and gas exploration in Ghana
3. What are the components of value creation accrued from the implementation of the local content policy for upstream oil and gas exploration in Ghana?
4. What is the relationship between the local content policy for the upstream oil and gas exploration and value creation in Ghana?

1.6 Research Method

The research questions will be answered using a descriptive survey. Descriptive survey is the defined as the process of collecting and analyzing data to identify trends and relationship (Salaria, 2012). A structured questionnaire will be developed to collect primary data among the representatives of the Petroleum Regulators, i.e. Ghana Petroleum Commission and representatives of the upstream oil and gas companies in Ghana. Companies. Using a random sampling technique, a sample of thirty (30) selected among the staff of the Petroleum Commission, staff of the oil and gas companies, such as Tullow, Eni and Aker, and the staff of the service providers, such as Halliburton and Apave. Data collected will be analyzed using mean score and regression analysis.

1.7 Research significance

The study contributes to the literature on local content policy and value creation. However, it extends the literature by examining the impact of local content policy and value creation in Ghana which has received less or attention in empirical studies. It is expected that the findings of the study will strengthen the practice among the upstream oil and gas exploration companies to engaging local expertise at all levels, in order to create value. In addition, the findings are expected to increase funding allocation to the local content development unit of the Ghana Petroleum Commission to enhance its monitoring and supervision on the compliance to the local content regulations enshrined in Petroleum (Local Content and Local Participation) Regulations, 2013

1.8 Chapter outline

Chapter one (1) presents the introduction of the study by outlining the background of the study, research problem and research objectives. Chapter two (2) will present the literature review. Chapter three (3) will present the research methods. Chapter four (4) will present data analysis,

interpretation and discussion of results. Chapter five (5) will present summary of the study, conclusions and recommendations

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The study seeks to examine the impact of local content development and value creation in the upstream oil and gas sector in Ghana. This chapter therefore presents the review of literature related to the subject. The chapter is divided into three (3) sections, namely, conceptual, theoretical and empirical reviews. In addition, the chapter presents the conceptual framework of the study developed based on the theories developed in alignment to the objective of the study.

2.2 Conceptual review

2.2.1 *Overview of local content policy*

Local content policy is the law requirements that allow foreign firms/multinational companies (MNCs) to use a quantum of the national goods and services in its operations in order to build the capacity of the local economy and ensure job creation (Abio, 2015; Acheampong, Svaniker, & Ashong, 2016; Adedeji, Shaufique, Azwamani, & Law, 2015; Bellema Ihua, Abiodun Olabowale, Nnanna Eloji, & Ajayi, 2011; De Vita, Lagoke, & Adesola, 2016; Kazzazi & Nouri, 2012; Martini, 2014; IMANI, 2018). IMANI (2018) local content requirements ensures that a quantum of domestic goods and services are employed in each value chain peculiar to the final finished products. Organization of Economic Co-operation and Development (OECD) defines local content policy as interventions or strategies enacted by the government of nation onto MNCs to use local or domestic goods and services with the aim of spur economic growth and create employment. This means that local content policies are not voluntary but are imposed upon the MNCs and require compliance on the part of the MNCs.

Local content policy as a tool for encouraging domestic participation and ownership in the local economy, particularly, due to the influx of MNCs which is considered primary in stimulating

economic growth (IMANI, 2018; Abio, 2015; Acheampong, Svaniker, & Ashong, 2016). However, the IMANI (2018) reiterated that the concept of the local content and local participation were separated defined in the LI 2204 Petroleum (Local Content and Local Participation 2013) Regulation for the upstream oil and gas sector in Ghana. The LI 2204 defined local content *the quantum or percentage of locally produced materials, personnel, financing, goods and services rendered in the petroleum industry value chain and which can be measured in monetary terms* (Government of Ghana, 2013, p. 27). Local participation in the LI 2204 is also defined as the degree of equity ownership in the upstream oil and gas sector. It means that local content in Ghana's upstream oil and gas industry is focused on the proportion of local goods and services employed across the petroleum value chain while local participation is focused on level of control local stakeholders hold in the development initiatives in the oil and gas sector. It further means that local content is the vehicle used by GoG to achieve local participation/ownership – i.e. level of control in the upstream oil and gas companies. Therefore, for the purpose of this study, the local content definition provided in the LI 2204 will be extensively used since it is focused directly on upstream oil and gas industry, which is the focus of the current study.

Indeed, local content policy is widely accepted as a strategy for in managing the mineral resources of a nation, due to its ability to create the friendly business environment to facilitate trade and investment as well as provide knowledge, skills and technology transfer, the local content policy. However, it is also criticized for its high cost of compliance arising from delays in the bureaucratic procedures to ensure its enforcement, thus, resulting into the inefficiencies in allocation of resources (IMANI, 2018). Besides, the inefficiencies can reduce the competitiveness of the sector, thus hindering economic diversification (OECD, 2016).

2.2.2 Significance of the local content policy

The significance of the local content policy is explained as follows:

2.2.2.1 Value addition

The purpose of the local content requirements is to build the capacity of the local industries to gain equity ownership in the oil and gas industry (Esteves & Barclay, 2011). According to Esteves and Barclay (2011) the local content requirements is expected to boost local economic participation in the oil and gas industry in order to build the capacity of the local enterprises in business developments, particularly, beyond the scope of the immediate community. In view of this, the local enterprises may now develop contracts to supply goods and services along the value-chain of the oil and gas exploration. This can provide international recognition, which allow resource flow (employment, wages, knowledge and technology transfer and innovative market interventions) into the local community whiles at the same time safeguarding the reliability of the local enterprises in business development along the value-chain. According to Esteves and Barclay (2011) the participation of the local enterprises in the oil and gas sector gives them the authorization to operate, to have a stake in the industry and to ensure reliability of supply in the value chain as well as ensuring resource development flow into the community. In examining the ability of the local content to enhance procurement strategies in Australia, Esteves and Barclay (2011) revealed that local SMEs through either sole sourcing or competitive bidding are able to participate in the oil and gas value-chain to ensure private-sector led development; however, they established that this can be made possible through the support from government and development institutions. In the long-term, this can strengthen the government's efforts in reducing poverty in the local communities.

2.2.2.2 *Employment opportunities*

The purpose of adding value to the local enterprises is to ensure the creation of employment opportunities, particularly, for the youth in order to reduce unemployment in the country (Unam, Agorzie, & Asaolu, 2012). According to Unam, et al. (2012) the local content policy drives employment opportunities since it ensures use of local labour at each stage of the value-chain in the oil and gas exploration and production. Job creation or employment creation is one of the key purposes for the development of the local content requirements in Ghana in the L.I 2204. It stated that the petroleum regulation (L.I 2204) is purposed *to promote the maximization of value-addition and job creation through the use of local expertise, goods and services, businesses and financing in the petroleum industry value chain and their retention in the country* (Article 1a, pg. 4) and *achieve the minimum local employment level and in-country spend for the provision of the goods and services in the petroleum industry value chain as specified in the First Schedule* (Article 1c, pg. 4). This the issue of job creation is clearly stated in the Ghana's local content requirements for the upstream oil and gas sector.

By creating jobs, the skills of the local people can be development and enhanced to meet the requirements of the oil and gas sector (Tordo, Warner, Osmel, & Yahya, 2013).

2.2.2.3 *Local involvement*

The purpose of the local content policy is to ensure the involvement and participation of the local community in the oil and gas value-chain.

2.3 Theoretical review

Theoretical review considers the local content model which explains the philosophy of the local content development policy and its formulation.

2.3.1 *Local content model*

Local content model was developed by Kazzazi and Nouri (2012) to explain the concept of local participation, involvement, and ownership in the oil and gas industry in Nigeria. Although, it seem

to be a new concept, it is believed that it was first championed in academic literature by Grossman (1981) (Kazzazi & Nouri, 2012; Azhagaliyeva & Kalyuhnova, 2016). According to Azhagaliyeva and Kalyuhnova (2016) Grossman (1981) local content requirements is a protection tool that ensures that local inputs are used in the production of products with domestic origin. In relating this to the oil and gas upstream production, it is a local protection tool that ensures a fraction of local inputs is used in the exploration of oil and gas in the resident country, e.g. Ghana. according to Azhagaliyeva and Kalyuhnova (2016) indicated that the concept of the local content model is to promote the use of local intermediate inputs in the exploration and production of oil and gas and deter the importation of foreign intermediate inputs through the payment of penalty for non-compliance. In theory, this is explain as a certain fraction of a local intermediate input, M , is used as an input for the final good production of a domestic origin, k (Azhagaliyeva & Kalyuhnova, 2016, p. 4).

According to the theory, the fraction of the local content is used in the final good production until marginal revenue (MR) is higher than marginal cost (MC), $MR > MC$ (Azhagaliyeva & Kalyuhnova, 2016). It means that achieving the balance, where by MC equals MR is not the purpose for instituting local content policies and programmes (Stone, Flaig, & Van Tongeren, 2014). According to Azhagaliyeva and Kalyuhnova (2016) and Stone, Flaig and Van Tongeren (2014) the purpose of the development of local content policies and programmes in any country is targeted at maximizing profit and not mere protecting local companies or creating jobs. This is due to the fact that without the concept of profit maximization, the foreign companies cannot create the jobs and the there will be no competitive environment to for make the local companies strive for growth that will make them compete on the international market.

Nevertheless, Azhagaliyeva and Kalyuhnova (2016) asserted that profit can only be maximized if the local companies are engaged, involved and participated in the process of oil and gas exploration and production in the host/resident country. Azhagaliyeva and Kalyuhnova (2016) explained that local content policies are expected to create an equilibrium of domestic outputs through the participation of local inputs. However, the equilibrium in domestic outputs can be reduced if the local inputs are involved excessively. This argument could be true in the midst of foreign exchange volatilities which may result in high cost of production, thus, reducing revenue and profitability levels since production may be curtailed in response to increase prices of final products (Azhagaliyeva & Kalyuhnova, 2016).

In view of this, Stone, Flaig, and Van Tongeren (2014) reiterated that local content policy development requires the government and its stakeholders what quantum of local input is needed to achieve the equilibrium in domestic outputs and still ensure profit maximization for the foreign companies. The quantitative requirement, according to Stone, et al. (2014) is expected to guide local involvement and participation but not quantitative restrictions that will determine the levels of importation that reduce quality of the final product and create a repressive market, which is not good for business development. This means that even though the local content policy is a requirement for every economy to promote the welfare of local industries to create local ownership the concept of market liberalization for competition cannot be watered down (Azhagaliyeva & Kalyuhnova, 2016; Stone, Flaig, & Van Tongeren, 2014).

In order to ensure the resident country achieves its welfare protection for the local companies and at the same time ensure profit maximization, Kazzazi and Nouri (2012) developed a local content model for the Petroleum Industry for developing countries. The model outlines the factors that ensure the success of the local content programmes for the upstream oil and gas exploration and

production. These factors are local policies, local infrastructure, local environment and local capabilities. These factors are interlinked and the extent to which these factors are harmonized determines the level of growth and development of the oil and gas industry in an economy (Kazzazi & Nouri, 2012). These factors are explained as follows:

1.8.1.1 Local policies

Local policies are the course of actions developed by the government to facilitate the growth of the oil and gas sector with the main focus of promoting both industrial and economic growth and at the same time creating a spillover effects (Kazzazi & Nouri, 2012; Acheampong, Svaniker, & Ashong, 2016; Tordo, Warner, Osmel, & Yahya, 2013). However, this can only be achieved through involvement and participation of local companies and labour (Martini, 2014). therefore, the local policies are the laws and regulations that government in the engagement, involvement and participation of the local companies and labour in the oil and gas exploration and production as well as guidelines for knowledge and technology transfer to create ownership among local communities for the growth and development of the oil and gas industry. In Ghana, the local content policy is enshrined in Legislative Instrument (L.I.) 2204, Petroleum (Local content and local participation) regulation 2013. The regulative law indicates the process of procurement for companies and logistics for the oil and gas companies and the 10% job avenues reserved for local participation and involvement per year in order to attain full ownership as well as knowledge and technological skills to sustain the gains achieved.

Indeed, the development of the policies is a government initiative with collaboration with all stakeholders; however, it is the initiative to make the law work through enforcement, monitoring and supervision (Kazzazi & Nouri, 2012). According to Kazzazi and Nouri (2012) the success of

the local content initiative and policy for the oil and gas sector is largely dependant on the ‘political will’ of the government to protect the welfare of the local community by promotion value creation.

1.8.1.2 Local infrastructure

Local infrastructure refers to the conditions available locally to ensure the implementation of the policies developed. These conditions include information technology, financial, social and educational needs available for the local petroleum industry to thrive (Kazzazi & Nouri, 2012). The prevalence of such conditions will ensure that the development of the local content is in alignment with the economic development policies of a nation (Tordo, Warner, Osmel, & Yahya, 2013). According to Tordo, Warner, Osmel and Yahya (2013) the conditions for the implementation of the local content policy should be aligned and assistant with the policy of improving quality education, policy of building a resilient and stable financial sector and wider macroeconomic policies that will ensure price stability and encourage foreign direct investments and leverage trade agreements. In view of this, the economy will be diversified and transformed since the local expertise are trained and empowered to collaborate with the foreign expertise to create local ownership and improve economic growth and development in the resident country (IMANI, 2018; Semykina, 2015).

1.8.1.3 Local capacity

However, IMANI (2018) reiterated that local ownership and its influence on economic growth and development cannot be achieved if the development of the local content policy is not preceded by the capacity assessment to know the the capacity of local participation need to spur growth and development as reiterated by Azhagaliyeva and Kalyuhnova (2016). Azhagaliyeva and Kalyunova (2016) reiterated that the ability of the resident economy to grow and development is defined by the level of local involvement needed in economy since high level of local involvement and participation and foreign exchange rate volatilities can make the local content policy

counterproductive. Therefore, the development of the local capacity is a key requirement or factor of the local content model. The local capacity, according to Kazzazi and Nouri (2012), include the capacity of the local companies, educational level of the local community, skills and expertise development, technology and knowledge transfer, and research and development capabilities. The success of the local capacity for local content development is co-operation between the actors achieved through effective communication and interaction (Unam, Agorzie, & Asaolu, 2012). According to Unam, Agorzie and Asaolu (2012) co-operation among actors or stakeholders is the bedrock on which knowledge, skills and technological transfers are achieved. Unam, et al. (2012) the cooperation enhances the capacity of the actors to address challenges arising from implementation process, thus bridging the gap between local content policy formulation and local content policy implementation.

1.8.1.4 Local environment

Unam, et al. (2012) added that although co-operation is key in the development of the local capacity for the indigenization of the oil and gas industry, indigenization of the oil and gas sector require the conducive local environment to drive human and institutional interactions. The local environment that drives human and institutional interactions is the macroeconomic, and business & investment environments (Kazzazi & Nouri, 2012; Tordo, Warner, Osmel, & Yahya, 2013). According to Tordo, et al. (2013) the local environment should have a stable macroeconomic conditions that is favourable for foreign direct investment, trade and financial sector development, and at the same time the market should be efficient enough to reduce cost, improve quality of products and guarantee unswerving supplies. It means that the local environment should have regulatory mediations that ensures efficiency is assured in the process of the local content development and implementation (Tordo, Warner, Osmel, & Yahya, 2013). According to Tordo, et al. (2013) this will create a competitive value chain for the upstream oil and gas which will be able

to address the technological complexity and risk associated with upstream oil and gas exploration and production.

1.8.1.5 Local content development

It must be noted that the purpose for creating the efficient market economy is to improve economic and industrial growth while at the same time creating the spill over effects (Tordo, Warner, Osmel, & Yahya, 2013). Nevertheless, the key aim of local content requirement is to create jobs and protect the welfare of local companies, which will ultimately improve domestic outputs and economic growth in the long-term (Semykina, 2015). It means that the local content requirement should stipulate clearly the government's entrepreneurial policy which outlines measured actions to build the capacity of the local people that will facilitate job creation (Adedeji, Shaufique, Azwamani, & Law, 2015). According to Adedeji, Shaufique, Azwamani and Law (2015) the logical way to improve economic growth and development in a country is through the increased entrepreneurial ventures of the local people to create jobs and provide avenue for the procurement of local finished products. This will aid industrial growth.

In fact, the spillover effects is created through the knowledge and technological transfer attained through partnership with the foreign expertise.

2.4 Empirical review

The empirical review considers two (2) strands of literature, namely, local content development and value creation, and opportunities and benefits of local content development. These are presented as follows:

2.4.1 Local content development and value creation

Kazzazi & Nouri (2012) developed the conceptual model for local content in the petroleum industry. Local content is defined as the process of value creation in the petroleum industry through local enterprise participation and local ownership . the study indicated that the purpose of the local

content model is promote social, economic and political development in a oil and gas producing economies. Based on literature review the study indicated that the local content of the petroleum industry can be developed based on the interrelationships between local policies, local infrastructure, local environment and local capability. To examine the interrelationships between these factors, data was collected among thirty-eight (38) oil and gas professionals in Iran Petroleum Industry and analyzed using Pearson Correlation. The results revealed the interrelatedness among these factors and indicated that the implementation of the content varies from one country to the other due to the differing political, social and economic structures. Therefore, the model can be adopted to suit the unique developments in each country.

De Vita, Lagoke and Adesola (2016) examined the stakeholder interaction in the Nigerian's oil and gas industry to enhance understanding of the local content and provide the favorable environments for the local content development. Using a qualitative research approach, De Vita, Lagoke and Adesola (2016) conducted social network analysis using fifteen (15) stakeholder groups. The findings reveal that most of the relationships among the stakeholders are unidirectional and the higher educational institutions play little role in the local content delivery in the oil and gas industry. It further revealed that the oil and gas industry in Nigeria is more driven by international companies with global centrality compared local enterprises.

Heum, Kasande, Ekern, and Nyombi (2011) provides a guide and framework of best practices in the development of local content policy in the upstream oil and gas industry. The paper indicated that the best practice in the development of the local content policy to ensure that a sound and competitive environment to encourage participation of local firms in the industry whiles providing a track record to ensure indigenes have future rights in the oil and gas industry. The paper argued

that the local content policy should ensure the growth and development of the oil and gas industry and this should have a ripple effects on other sectors or industries in the economy.

Adedeji, Sidique, Abd Rahman and Law (2016) analysed the impact of the local content policy in harnessing value creation in terms of local firm participation, job creation and backward linkages using the Structural Equation Model (SEM). Data for the study was collected among 209 local oil and gas firms in the Niger Delta. The findings of the study revealed that there is a positive significant relationship between the local content policy and value creation in the Nigerian oil and gas industries. nevertheless, the significant relationship is minimal since the value creation achieved is less than the expected target. This have implications to the monitoring and supervision of the local content by the regulatory body.

Unam, Agorzie and Asaolu (2012) examined the impact of Nigerian Local Content Policy on the technological capacity of thirty-eight (38) Small and Medium Enterprises (SMEs) in the oil and gas industry using descriptive statistics. The findings of the study revealed that the local content policy has influenced the technological capacity of the SMEs in the oil and gas sector. Specifically, the study indicates that the SMEs capacities in preparing bids, contracts and winning contracts has been enhanced as well as their capacity to deliver quality service and products, and meeting ISO standards. This was achieved through alliances and partnership with foreign companies and research and development. Thus, the study recommended that local participation in the oil and gas industry should be in partnership with foreign expertise.

Adedeji, Shaufique, Azwamani and Law (2015) analyzed the theoretical link between local content policy, indigenous participation and job creation in the oil and gas extraction sector in Nigeria. The paper reiterated that the purpose of the local content policy in the oil and gas industry is to ensure job creation. Therefore, the inferred that there is a relationship between local content policy

and indigenous participation in the oil and gas sector; however, this relationship is only meaningful considering the number of jobs created as a result of the participation of the local firms, else, the goal for the development of the local content policy will be thwarted.

Bellema Ihua, Abiodun Olabowale, Nnanna Eloji and Ajayi (2011) used the varimax rotation factor-analysis to examine the relationship between the local content policy of the oil and gas sector in Nigeria and entrepreneurial activities and its socio-economic implications within the Niger Delta. Responses from structured questionnaire was drawn from 120 constituents in Bayelsa, Delta and River States. The findings revealed that the local content policy may have created job avenues for the indigenes and the indigenes have a special quota arrangements to benefit host communities, however, the results revealed insignificant relationship between enhanced job avenues and its implication on the socio-economic development of the host communities. This is attributed to the state of social unrest, uncalled militant activities and destruction of oil extraction equipments.

Ako, Obokoh, and Okonmah (2009) used exant literature and deductive arguments to examine the role of corporate social responsibility (CSR) and stakeholder in promoting peace in the Niger Delta, the hub of upstream oil extraction in Nigeria. The study revealed that the recurring social unrest and economic unrest in the Delta region can be resolved through the effective stakeholder analysis built on corporate social responsibility. The study indicated that non-performance of CSR by the multinationals in the region has serious implications of cost of production and profitability.

2.4.2 Opportunities and benefits of local content development

Abio (2015) analyzed the various kinds of opportunities Enterprise Development Centre (EDC) promoted in the oil and gas industry to improve the capacity of local entrepreneurs in Ghana. the opportunities were examined using Bourdieu's distinction model between the social, cultural,

economic and symbolic capital avenues. EDC was targeted for the due to the fact that it was established by the Government of Ghana in 2013 to support Ghanain Small and Medium Scale Enterprises (GhSMEs) by building their capacities to competitively position themselves for the business opportunities in the oil and gas industry. The range of support services provided by the EDC are business training, advisory services, employee capacity building and access to market and information related to the developments of the oil and gas industry. The study revealed that EDC has facilitated network interaction between local entrepreneurs and other stakeholders. This has resulted into improved knowledge of the industry and has become a gateway entry points for local companies in the industry. The study revealed that the interactive network is mostly patronized by few well-established local enterprises who are able to harness the opportunities available to grow their operations, thus, giving them a competitive edge in the industry. This indicates that most of the small enterprises are not able to make use of the opportunities created by the EDC.

Darkwah (2013) examined the employment opportunities created for the oil sector. The study revealed that the oil and gas training programmes instituted in the emerging economies secretly keeps hope alive among the youth for gaining decent employment since the trainings serve as avenues for oil and gas related knowledge and skills transfer. However, the study revealed that most of the hope are not realized, thus, it is expedient for the government create for avenues to ensure that the youth gains from the oil and gas industry, by creating more employment avenues.

Semykina (2015) examined the impact of mineral resource endowment on local content requirements in Eastern Siberia. Specifically, it examine the operations of national companies in the oil and gas sector in Russia. The study revealed that the national companies operate using rent-seeking strategies but does not bring significant economic benefits for the industry and the

economy. Thus, the paper suggested the development of the local content policy in the region to influence economic development and job creation. Using the statistical modelling approach, the study analyzed the requirements of the local content policy requirements of Norway and Brazil and concluded that the implementation of local content requirement policy will positively impact the real income per capita growth and job creation. It revealed that the use of the local companies as primary suppliers for the oil and gas industry will create a spillover effects that spurs socioeconomic development and economic diversification.

Azhagaliyeva and Kalyuhnova (2016) examined the drive to comply with local content requirements among 823 metal extractors and explorers in Kazakhstan during the period 2013 – 2015. Data collected for the study was collected from local, regional and national levels and were analysed using panel analysis. The results of the study revealed that the devaluation of the local currency drives the local companies to meet local content requirements for the procurement goods and services, recruitment of managers and building the capacity of the employees. However, those in the extraction of the metals are more commitment to complying to local content requirements than companies in metal exploration. It means that companies are committed to ensuring that the local environment is always ripe for business and investment purposes in order to spur economic growth.

CHAPTER THREE

RESEARCH METHODS

3.1 Introduction

The study seeks to establish the impact of local content policy requirements and value creation in the upstream oil and gas sector in Ghana. This chapter, therefore, presents the research methodology which outlines the systematic way of solving the research question. The research methodology includes the research design, research method, description of population and sample of the study, the process of data collection, processing and data analysis. Other components of the research methodology for this study are description of the area of study, ethical considerations and limitations of the study.

3.2 Research design

Research design refers to the logical structure of the study which explains or provides evidence of how the research questions were answered without any bias (De Vaus, 2001). According to De Vaus (2001) the purpose of the research design is to provide evidence to answer the research question convincingly. Based on this assertion by De Vaus (2001), research design can be described as the blueprint of the study that describes the process of data collection, data processing and data analysis in line with the research questions. A careful description of the research design at the beginning of the study is very important due to its influence in the design of the tool for data collection (i.e. the questionnaire) and conclusions drawn from data analysis in congruent to the research questions (De Vaus, 2001). According to De Vaus (2001) without a careful description of the research design at the initial stage of the study, the conclusions drawn from the data analysis may be weak and fail to address the research question.

There are two (2) distinct research designs, namely, descriptive research design and explanatory research design (De Vaus, 2001). Descriptive research design answers the question “what is going

on?” whiles explanatory research design answers the question “why is it going on/?” (De Vaus, 2001). According De Vaus (2001) descriptive research design presents the general facts about a phenomenon under study, which attempts to describe the trend of dimension related to the study; that is to say describing the cause and effects of the situation under study, thus, establishing relationships. The description of research design by De Vaus (2012) is in line the view of Salaria (2012) which indicated that a descriptive research design presents beliefs, facts, relationships and trends of a prevailing condition of study. According to Salaria (2012) descriptive research design focuses on critically analyzing and interpreting data that will help in inferring the results of the sample unto the population and providing forecasts to aid decision-making in the future.

Explanatory research design presents the reasons for the relationship and trend observed in descriptive study. The explanations are guided by hypothesis which are developed to provide understanding of the relationship and trends of a phenomenon. According to De Vaus (2001) hypothesis are theories formulated out of observation and it is tested to examine the validity.

Based on the above explanations, the study is guided by the tenets of descriptive research since it seeks to establish relationships between observed phenomenon, which are local content policy requirements and value creation in the upstream oil and gas sector in Ghana. The study will establish a relationship and infer causality but will not provide predictions on the causality since the causes may not directly established but inferred due to the use of ordinal figures derived from responses of likert scaled-questionnaire. In this case, the causal relationship is deterministically and not probabilistic established. It means that the relationship is based on condition that when there is a local content policy requirement, then there would be value creation, which is considered as a law (De Vaus, 2001). In addition, the relationship was based on human responses (behaviour) which are voluntary, subjective, meaningful and perhaps unpredictable (De Vaus, 2001).

3.3 Research method

Research method is defined as the approach of data collection, processing and analyses used for the study (De Vaus, 2001; Rajasekar, Philominathan, & Chinnathambi, 2006). According to De Vaus (2001) and Rajasekar, Philominathan and Chinnathambi (2006) research method is the approach of data collection that provides evidence to answer the research questions. Perhaps, the research method should be distinguished from the research design or else the conclusions of the study may be bias (De Vaus, 2001). According to De Vaus (2001) it is very important for a study to make a distinction between the research design and the research method to avoid weak or poor evaluation of the results that could led to unclear conclusions and judgements.

There are three (3) types of research method, namely, quantitative, qualitative and mixed research methods (Williams, 2007). Quantitative research methods use numeric tables and graphs to show relationship between variables under a phenomenon. Qualitative research methods use narratives to establish relationship and provide reasons for the relationships. Mixed research method is a combination of quantitative and qualitative research methods.

The current study seeks to establish relationship between two (2) variables, namely, local content policy and value creation, therefore, a quantitative research method is employed to establish the relationships. This is preferred to qualitative and mixed research methods since it seeks to establish only relationships without outlining the reasons of the relationships.

3.4 Data sources

Data sources refers location where data was collected for the purpose of the study (Boslaugh, 2007; Church, 2001). Boslaugh (2007) and Church (2001) identified two (2) sources of data for a research, namely, primary and secondary data sources. Both Boslaugh (2007) and Church (2001) did not give a sharp distinction between these two (2) data sources but reiterated the distinction depends on the relationship between the researcher and the data analyst. Boslaugh (2007) and

Church (2001) reiterated that primary data is collected specifically for the study while secondary data is collected for reasons other than the study. This means that the two (2) data sources are distinguished based on the power of origination, thus, with the primary data the researcher originally gathered the data from its raw state to a refined state (coded), e.g. is the data collected using a structured questionnaire or through interviews. With the secondary data the researcher only makes use of the codified data which was gathered and processed by another researcher, e.g. is macroeconomic data such as inflation, GDP, and interest rate, and financial/accounting ratios.

For the purposes of the current study, data is gathered from a primary source since it is involved in collecting opinions and views of people on the subject of the study and are specifically collected for the research purpose only. In addition, the primary data was collected since the researcher is actually involved in the data collection (Boslaugh, 2007).

3.5 Data collection

Data for the study will be collected from the staff of the Petroleum Commission, Ghana and staff of the MNCs in the upstream oil and gas sector in Ghana using a structured questionnaire which was developed purposely for the study. A questionnaire was used as a tool of data collection due to its ability to provide information on the standard of beliefs and attitudes related to the subject of the study (Bird, 2009). According to Bird (2009) questionnaire is an effective tool for collecting and collating views and opinions of persons related to a phenomenon. The questionnaire was developed based on a five (5) point Likert scale.

3.6 Population

Population is referred to as the total units of a constituent that is of interest to the researcher (Barreiro & Albandoz, 2001; Salaria, 2012). According to Barreiro and Albandoz (2001) and Salaria (2012) population is the total observable units which the researcher could engage in order to provide answers to the research question. Both Barreiro and Albandoz (2001) and Salaria (2012)

indicated that the purpose of using an entire population for a research is that the results/findings is more representative and reliable devoid of any error. For the purpose of the study, the population of the study comprise of the staff of Petroleum Commission, Ghana and the staff of the IOCs in the upstream oil and gas sector in Ghana. The total population of the study is 1,887 comprising of 187 from Petroleum Commission, Ghana and 1,700 from the IOCs in the upstream oil and gas sector in Ghana.

3.7 Sample and sampling technique

It is usually desirable for a research to reach all the targeted units of the population; however, it is practically impossible due to time and other resource constraints (Barreiro & Albandoz, 2001). In this situation, Barreiro and Albandoz (2001) it is advisable to use a sample which is a sub-set of the total observable units, so the results of the sub-group can be generalized upon the all whole population. The process of selecting the sub-group is known as sampling (Salaria, 2012). In the process of selecting the sample, Salaria (2012) indicated that the sample size should not necessary be a representative of the population but an adequate number of units that will provide accurate information that will make the results of the study reliable. Nonetheless, there is still a margin of error that could be accepted in the choice of the sample size (Barreiro & Albandoz, 2001). Based on the concept of margin of error (ME), a total number of 30 persons were sampled for the study. The formula for the calculation of the sample size is presented in the equation below:

$$ME = z \sqrt{\frac{\hat{p}(1 - \hat{p})}{n}}$$

Where ME is the desired margin of error for the study, targeted at 5%, z is the confidence level targeted at 95% with a significance value of 1.96, \hat{p} is the proportion of the population that support the local content requirements which is 2%, n is the sample size.

The sample size was reached using the probability sampling technique of random sampling since all the members of the population are all likely to be chosen for the study (Barreiro & Albandoz, 2001). According to Barreiro and Albandoz (2001) the random sampling technique is used when all members of the population have the same probability of being chosen to participate in the study.

The composition of the sample is presented in table 1 as follows:

Table 1: Table of the distribution of sampled respondents

Category of respondent	Sample size
Petroleum Commission	20
Tullow Ghana Ltd (IOCs)	2
Eni Ghana (IOCs)	2
Service Companies	6
Total	30

3.8 Data analysis

Data analysis refers to the breaking down of the data to provide information that will influence decision-making. The purpose of analyzing data is to make a meaning in order to make value judgements about the phenomenon under study. Data collected for the study will be analyzed using mean score, correlation and regression analysis. Mean score provides the average score of the responses related to a research question 1-4.

3.9 Measurement of the variables

The measurement of the variables are as follows:

Local content policy/requirements: this will be measured by the mean score ordinal values generated from the responses derived from the filled questionnaire. In this study, there will be no use of absolute figures since this is a descriptive survey.

Value creation: this will also be measured using the mean score of the ordinal values generated from the responses derived from the filled questionnaire.

3.10 Description of the area of study

The description of the areas of the study are as follows:

3.10.1 Petroleum Commission, Ghana

The Petroleum Commission was established by an Act of Parliament, 2011 (Act 821) as a result of hydrocarbon discoveries in commercial quantities, to regulate and manage the utilization of petroleum resources and, coordinate the policies in the upstream petroleum sector. Its vision is to become a world class regulator promoting Ghana as an upstream petroleum hub through efficient management of upstream petroleum operations and all allied activities and ensure sustainable utilization of the petroleum resources for the benefits of all Ghanaians. The core values of the Commission are ethics, integrity, teamwork, transparency, responsiveness, accountability, innovation, unity in diversity and proportionality, equity and fairness.

The regulatory work of the Commission is guided strictly by the L.I. 2204 Petroleum (Local Content and Local Participation) Regulation which was enacted into law in 2013. The Commission has a local content department which provide support for the enforcement of the regulations. The Commission has a total staff size of 170. A total of sixteen (16) respondents will be sampled from the Petroleum Commission from their top hierarchy for the study.

3.10.2 Tullow Ghana Limited

Tullow Ghana Limited is a listed company on the Ghana Stock Exchange and was among the few MNCs drilled wells and discovered oil at the jubilee field in 2007 in Cape Three Points and Tano Basin in the Western Region, Ghana.

In October 2008, Tullow was appointed as the Jubilee field Operator and set about working with the partners and Government of Ghana on developing the field to bring Ghana its first major oil production. The Minister of Energy in Ghana formally approved the Jubilee field Phase 1 Development Plan and Unitization Agreement on behalf of the Government of Ghana in July 2009. In November 2010, following a successful development programme, which included the building of a Floating Production Offtake Vessel (FPSO), first oil was achieved from the Jubilee field. This was some 40 months post the initial discovery well which represents the fastest ever comprehensive full-scale deep-water development. The field is Tullow's key asset and generates significant high-margin oil production for the Group.

Tullow's second major discoveries and subsequent development in Ghana is the TEN field. In May 2013, the Plan of Development for TEN was approved by the government of Ghana and Tullow commenced its second major Operated deep-water development. First oil was achieved on time and on budget in August 2016, three years after the Plan of Development was approved by the Government of Ghana.

A total of five (2) respondents will be sampled for the study from Tullow Ghana Ltd

3.10.3 Eni Ghana

Eni Ghana have been involved in the upstream oil and gas sector since 1960 whose activities was transformed into Tema Oil Refinery in 1977 by the Government of Ghana. Upon the discovery of oil in Ghana in 2007, Eni returned Ghana in 2009 to participate in the offshore oil and gas drilling

at Cape Three points with 44.4% share of the field. Its Offshore Cape Three Points (OCTP) is the only non-associated gas project dedicated to Sub-Saharan African Domestic market. This project will provide reliable gas to its targeted market for 15 years at affordable price. The OCTP project is being implemented in compliance with the highest environmental requirements, zero gas flaring and produced water re-injection, including the Performance Standards on Environmental and Social Sustainability of the International Finance Corporation (IFC), a subsidiary of the World Bank Group.

A total of two (2) respondents will be sampled for the study from Eni Ghana.

3.10.4 Service Companies

These are the local small and medium-scale enterprises who are engaged in the provision of goods and services for the upstream production activities. As per the L.I 2204, these Service Providers are either wholly owned by indigenous investors or a joint venture companies with foreign investors. Service Providers will be identified to participate in the study. Three Service providers will be sampled for this study and each Service Company will provide two (2) representatives to participate in the study, thus, giving us a total number of 6 respondents.

3.11 Limitations

The current study is a descriptive survey which is set to establish the relationship between local content policy and value creation in the upstream oil and gas sector in Ghana. This means that it explains the question ‘what is going on’ as discussed in section 1.2 above. The study does not explain why the relationship does exist between local content policy and value since the tenets of descriptive study set the limitation of explaining ‘why the relationship?’ (De Vaus, 2001). The why can be explained much better by a qualitative study which will help understand the processes involved in the implementation of L.I. 2204, the success and challenges in achieving value creation both from the experience of the regulated and the regulated. In addition, some direct beneficiaries,

such as service companies providing procurement and other services of the L.I. 2204, could be targeted for the study. This will provide actual life experiences

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF RESULTS

4.1 Introduction

The study seeks to establish the relationship between local content policy and value creation in the upstream oil and gas sector in Ghana, using descriptive survey. This chapter, therefore, presents the data analysis and discussion of results based on literature discussed in chapter two (2) above. This chapter comprises of the demographic characteristics of the respondents, the features of the local content policy, the compliance features and benefits of compliance to the policy. In addition, to provides the regression analysis of the relationship between local content policy and value creation.

4.2 Demographic characteristics

The demographic features of the respondents are presented in table 4.1 below:

Table 4. 1: Table of demographic characteristics of respondents

Demographic features	Frequency	Percentage
Gender		
Male	19	67.9
Female	9	32.1
Total	28	100
Organization		
International oil and gas company	4	14.3
Petroleum Commission	19	67.9
Service Companies	5	17.9
Total	28	100
Years of service		
0-2 years	11	39.29
3-5 years	3	10.71
6-7 years	12	42.86
8-9 years	2	7.14
Total	28	100

Demographic features	Frequency	Percentage
Positions in the organization		
Director	3	10.7
Manager	10	35.7
Officer	12	42.9
Advisor	3	10.7
Total	28	100.0

Table 4.1 above shows that a total of twenty-eight (28) representatives of the selected players in the upstream oil and gas sector participated in the study. This comprised of nineteen (19) male, representing 67.9% of the total respondents, and nine (9) female, representing 32.1% of the total respondents. The total respondents expected to be reached for the study is 30, thus, implying that there is an attrition rate of 6.67% since twenty-eight (28) questionnaires were returned.

The table also shows that out of the 28 respondents, nineteen (19) were drawn from the Petroleum Commission (PC), four (4) were drawn from the International Oil Companies (IOCs) and five (5) were drawn from the Service Companies.

Further, the table shows that twelve (12) of the total 28 of the respondents, representing 42.86%, have been in service in the upstream oil and gas sector for 6-7 years. Eleven (11) out of the total 28 respondents, representing 39.29%, have been in service in the upstream Oil and Gas sector for 0-2 years now. Three (3), representing 10.7% of the total respondents have been in service in the upstream oil and gas sector for 3-5 years now. The remaining two (2), representing 7.14% of the total respondents have been in service in the upstream oil and gas sector for 8-9 years now.

In addition, the table shows that twelve (12), representing 42.9% of the total respondents reached, were officers in their respective organizations. Ten (10), representing 35.7% of the total

respondents reached were managers in their respective organization. The remaining six (6) were directors and advisors, with a frequency of three (3) each, representing 10.7%, respectively.

4.3 Knowledge of the local content law – LI 2204

The number of respondents who know about the local content law – L.I. 2204 is presented in table 4.2 below:

Table 4. 2: Distribution of respondents based on knowledge of LI 2204

Do you know about the LI 2204?	Frequency	Percentage
Yes	28	100.0
No	0	0
Total	28	100.0

Table 4.2 above shows the distribution of the respondents based on the knowledge of L.I. 2204. It shows twenty-eight (28), representing 100% of the respondents, are in-the-know of the existence of the local content law for the upstream oil and gas sector, L.I. 2204.

4.4 Purpose of the local content law

The responses on the purposes for the promulgation of the local content law – L.I. 2204 are presented in table 4.3 below:

Table 4. 3: Purpose of L.I. 2204

Purpose	Percentage (%)
To regulate the upstream oil and gas sector	5.08
To protect the local companies in the provision of goods and services	5.08
To build capacity of the local people to take over the upstream oil and gas sector from the IOCs	10.17
To promote and protect the use of local resources in the upstream oil and gas and job creation, thus encouraging participation	32.20
All of the above	47.46
Total	100.00

Table 4.3 above shows that eighteen (18), representing 64.29% of the total 28 respondents opined that the purpose of the promulgation of L.I. 2204 is to promote and protect the use of local resources in the upstream oil and gas, and job creation, thus, encouraging participation. This corroborates with the assertion by Azhagaliyeva and Kalyuhnova (2016) that local content policies in the upstream oil and gas sector are developed to encourage local participation and its involvement. In the view of Azhagaliyeva and Kalyuhnova (2016) the local resources can be only protected by local participation, which is a key driver of profit maximization among IOCs and improved revenue for the government. Azhagaliyeva and Kalyuhnova (2016) reiterated that local participation in the local resources creates equilibrium for domestic outputs, which consolidates governments efforts on domestic revenue mobilization for national development. However, Adedeji, et al. (2015) established that the link between local participation in the oil and gas sector and increasing domestic outputs is only meaningful considering the number of jobs created.

Five (5), representing 17.86% of the total 28 respondents also opined that the purpose of the L.I. 2204 was to build the capacity of the local people to take over the upstream oil and gas sector from the IOCs. This corroborates the assertions of the local content policy is developed to ensure that the local capacity is built in order to create local ownership of the upstream oil and gas sector (Azghagaliyeva & Kalyuhnova, 2016; Kazzazi & Nouri, 2012; IMANI, 2018). According to IMANI (2018) local ownership of the upstream oil and gas sector cannot be achieved without capacity building. Again IMANI (2018) reiterated the needed economic growth and development associated in oil and gas exploration cannot be achieved if the capacity of the local community/people is not built. Kazzazi and Nouri (2012) itemized capacity building to be educational level of the local community, skills and expertise development, technology and knowledge transfer, and research and development capabilities.

Two (2), representing 7.14% of the total respondents opined that the L.I. 2204 is to protect the local companies in the provision of goods and services. Two (2), representing 7.14% of the total respondents also opined that the L.I. 2204 is regulate the upstream oil and gas sector. These corroborates with the results of Huem, et al. (2011) which established that the purpose of designing the local content policy to ensure the ambience of sound competitive environment for local companies to thrive, thus, protecting the local companies. Huem, et al. (2011) reiterated that a good competitive environment helps the local companies to hold and gain the future rights in the oil and gas sector.

The remaining one (1), representing 3.57% of the total respondents opined that all the above are the purpose of the promulgation of the L.I. 2204 in Ghana. This means that the objective of the promulgation of the local content law – L.I. 2204 mutually exclusive to capacity building, regulating and protecting the local companies, local participation, involvement and ownership. All

these are considered as one and interrelated. Nevertheless, Kazzazi and Nouri (2012) established that the achievement of the interrelationships of these objectives depends on the level of growth and development of the oil and gas sector in the economy.

4.5 Research question 1 – What the feature of the local content law – L.I. 2204?

4.5.1 Features of L.I. 2204 – response from all respondents

The responses on the features of the local content law – LI 2204 are presented in table 4.4 below.

Responses for this section excluded the five (5) representatives of the Service Companies.

Table 4. 4: Features of the local content policy – L.I. 2204

Features of the law/regulation	PC	IOCs	SC	
General provisions on local content requirements in the upstream oil and gas sector	4	1	0	17.86
General provision, local content plan, employment and training sub-pan, , research & development, technology transfer programme, local insurance and financial services content, legal services, submission of report, and monitoring, compliance and enforcement.	14	3	5	78.57
All of the above	1	0		3.57
Total	19	4	5	100.0

Table 4.4 above shows that five (5), representing 17.86% of the total respondents opined that the features of the local content policy is focused on general provisions on the local content requirements in the upstream oil and gas sector. Twenty-two (22), representing 78.57% of the total respondents opined that the features of the local content policy focused on General provision, local content plan, employment and training sub-pan, research & development, technology transfer programme, local insurance and financial services content, legal services, submission of report,

and monitoring, compliance and enforcement. One (1), representing 3.57% of the total respondents opined that features of the local content policy is focused on all the options provided.

This means that the majority of the respondents opined that local content policy is the foundation of the local infrastructure developed by the government to ensure local participation, involvement and ownership of the upstream oil and gas sector. Based on the local content model developed by Kazzazi & Nouri (2012) have general provisions that defines the policy of local participation, involvement and ownership and the infrastructures and environment needed to ensure the effective implementation of the policy. It implies that the effectiveness of the local content policy is largely dependent provisions enshrined in monitoring, compliance and enforcement of the law.

4.5.2 Implementation of the features of the L.I. 2204 from the perspectives of PC

The responses of the implementation of the features of the L.I. 2204 are presented in table 4.5 below:

Table 4. 5: Implementation of the features of the L.I. 2204

Features	Strongly disagree/Disagree	Neutral	Strongly agree/agree
Local insurance local content	0	6	13
General provisions	1	2	16
Local content plan	1	2	16
Employment and training plan	0	1	18
Research and research development plan	2	4	13
Financial services content	2	5	12
Legal services content	1	5	13
Local content performance reporting	0	2	17
Data and information on local content	3	5	11
Monitoring, compliance and enforcement of the regulations	0	1	18

Table 4.5 above shows the level of implementation on the specific features of the L.I. 2204 by PC. It shows that thirteen (13) respondents agree the PC implements the provisions on local insurance local content. This means that PC ensures that oil and gas insurance activities are the reserved of the local insurance companies. Six (6) of the respondents, were indifferent on provision. The general provisions of the L.I. 2204 are highly implemented and enforced by the PC with sixteen (16) respondents giving affirmative response. Two (2) and one (1) respondents were indifferent and disagreed, respectively.

The table further shows that sixteen (16) respondents agreed to the implementation of the specific provisions related to the local content plan by the PC, whiles two (2) and one (1) respondents were

indifferent and disagreed, respectively. Related to this the local content plan, eighteen (18) of the respondents agreed that the specific provisions related to employment and training is being implemented and enforced by the PC. One (1) was indifferent to the implementation of the provisions. Also related to this, thirteen (13) of the respondents agreed that the PC enforces and implementations the specific provisions related to research and development plan. Four (4) and two (2) of the respondents were indifferent and disagreed, respectively.

Also, the table showed twelve of the respondents agreed that financial services related to the upstream oil and gas activities are the solely reserved for the local financial institutions unless stated otherwise. Five (5) and two (2) respondents were indifferent and disagreed, respectively. Thirteen (13) respondents agreed to the enforcement and implementation of the specific provisions related to upstream oil and gas activities. Five (5) and one (1) respondents were indifferent and disagreed, respectively.

The table also indicated that the requirements for local content performance reporting is highly implemented and enforced by the PC with seventeen (17) respondents affirming it. Two (2) were indifferent. Related to this, eleven (11) respondents agreed to the implementation and enforcement of the specific directives related to data and information on local content. Five (5) and three (3) respondents were indifferent and disagreed, respectively.

Eighteen (18) respondents agreed to implementation and enforcement of monitoring, compliance and enforcement of the regulations by PC. One (1) respondent was indifferent.

The above responses indicates that they are highly committed to the implementation of the law to its letter since each of the feature and its scoring represent the level of implementation of the regulation at the PC level. The highest score gained by the monitoring, compliance and

enforcement feature indicates PC's is high committed to monitoring the compliance and enforcement of the L.I. 2204 among its partners, particularly, the IOCs and the service companies. It implies that PC ensures the creation of job avenues to stimulate economic growth through monitoring the enforcement and compliance of the regulation. This corroborates with the results of Semykina (2015) which established a positive relationship between implementation of the local content regulation and real income per capita growth in Norway and Brazil. Besides, this corroborates with the findings of Azhagaliyeva and Kalyuhnova (2016), which established that the success of the local content is dependent on the commitment of the stakeholders, particularly, direct players, such as the IOCs and service companies as well as the regulators, to the implementation and compliance metal extractors and explorers in Kazakhstan. Again, Azhagaliyeva and Kalyuhnova (2016) reiterated that commitment to implementation and compliance to the regulation creates the local ambience that drives business and investment purpose in order to stimulate economic growth and development.

4.6 Research question 2: Significance of the L.I. 2204

This section presents the findings on the significance of the local content policy – L.I. 2204 – in Ghana. The result is presented in table 4.6 below:

Table 4. 6: Significance of L.I. 2204

Features of significance	Percentage (%)
To create jobs	17.39
To add value to the local people through training and skills transfer in oil exploration and production.	19.57
To build the capacity of local companies to effectively and efficiently participate in the oil exploration and production.	28.26
To enhance the competitiveness of local companies on the global market.	17.39
All of the above	17.39
Total	100.0

Table 4.6 above shows that 17.39% of the total respondents opined that the significance of the L.I. 2204 is all the features noted in the table, i.e. to create jobs, add value to the local people through training and skills transfer, build capacity of the local companies to effectively and efficiently participate in the oil and gas production, and enhance the competitiveness of local companies on the global market. 28.26% of the total respondents opined that the significance of the L.I. 2204 is to build the capacity of the local companies to effectively and efficiently participate in the oil exploration and production. 19.59% of the total respondents, opined that the significance of the L.I. 2204 to add value to the local people through training and skills transfer.

The results in table 4.6 indicates that the significance of the promulgation of regulation L.I. 2204 is to create jobs, add value to the local people through training and skills transfer, build capacity of the local companies to effectively and efficiently participate in the oil and gas production, and enhance the competitiveness of local companies on the global market. This corroborates the assertion of Esteves and Barclay (2011) the importance of the availability of the local content law/regulation is to encourage local economic participation in the oil and gas industry to create

jobs and build the capacity of the local enterprises in business developments, particularly, beyond the scope of the immediate community, thus, ensuring value addition. According to Esteves and Barclay (2011) the participation of the local enterprises in the oil and gas sector gives them the authorization to operate, to have a stake in the industry and to ensure reliability of supply in the value chain as well as ensuring resource development flow into the community. Esteves and Barclay (2011) established that the significance of the local content policy in Australia is skinned to the private-sector led development which was facilitated by participation of local SMEs in either sole sourcing or competitive bidding along the oil and gas value chain.

4.7 Research question 3 – Components of value creation (IOCs perspectives)

This section presents the findings on the components of value creation as presented in table 4.7 below:

Table 4. 7: Compliance among IOCs

Value Creation	Disagree & Strongly Disagree	Neutral	Agree & Strongly Agree
Giving indigenous companies the first preference in the grant of petroleum agreement or license	0	1	3
Giving indigenous companies the right to 5% equity participation in IOCs	0	0	4
Allowing IOCs who intends to provide goods and services to enter into a joint venture with indigenous companies, with at least 10% equity participation	0	0	4
IOCs should provide strategies for the transfer of technology and skills to indigenes	0	2	2
Giving local companies the first preference in the provision of goods and services in the sector	0	1	3
Recruitment of only Ghanaians to the middle and junior level positions	0	0	4
Providing room for on-the-job training for indigenes to occupy positions held by non-Ghanaians (succession planning)	1	0	3
Allowing Ghanaians to participate in research and development activities in the sector	1	1	2
Insurable risks related to petroleum activities in Ghana reserved for indigenous brokerage unless the permission is granted for offshore insurance by NIC	0	0	4
Financial services related to petroleum activities in Ghana reserved for indigenous financial institutions	1	1	2
Monitoring, compliance and enforcement of the regulations	1	1	2

Table 4.7 shows the components of value creation that the IOCs observe in compliance to the L.I. 2204 – the local content policy. The results indicate that IOCs complies with the directive of giving local indigenous companies the first preference in the grant of petroleum agreement or license and first preference in the provision of goods and services in the sector. Three (3) of the four (4) from the IOCs agreed to complying to these provisions while one (1) respondent was indifferent.

The table also shows that the IOCs comply highly with the regulation of giving indigenous companies/investors 5% equity participation in the IOCs. All four (4) respondents from the IOCs agreed to high compliance with this directive. Related to this is the compliance to the regulation on allowing IOCs who intend to provide goods and services to enter into a joint venture partnership with local companies with at least 10% equity participation. All four (4) respondents from IOCs agreed to high compliance with this directive. Also related to this high compliance with giving local companies the first preference in the provision of goods and services in the sector. Three (3) of the respondents from IOCs agreed to this, with one neutral response.

Two (2) of the respondents agreed that IOCs provide strategies for the transfer of technology and skills to indigenes and provide room for on-the-job training for indigenes to occupy positions held by non-Ghanaians (succession planning). This means that Ghanaian employees in the upstream oil and gas sector enjoy skills and technology training periodically, that creates the ambience for local ownership of the oil and gas sector. However, two (2) of the respondents were indifferent on strategies for technology and skills transfer to indigenes.

In terms of recruitment and job positions, the table shows that the IOCs highly comply with the regulation of recruiting only Ghanaians for the middle and junior level positions in their respective companies. All the four (4) respondents from the IOCs agreed to this. Related to this providing room for on-the-job training for indigenes to occupy positions held by non-Ghanaian (succession planning). Three (3) of the respondents from the IOCs agree to compliance with this directive. One (1) respondent disagreed to compliance to this directive by the IOCs. Also related to this, the table shows that two (2) of the respondents agreed to high compliance with the directive of allowing Ghanaians to participate in research and development activities in the sector. This means that Ghanaians are involved in research activities to improve the activities of the upstream oil and gas

production, thus, ensuring local involvement. One (1) respondent was indifferent to the compliance with the directive while one (1) respondent disagreed that the IOCs comply with research and development activities for the upstream oil and gas sector.

The table shows that the IOCs highly comply with the regulation on reserving all insurable risks related to petroleum activities in Ghana for indigenous brokerage firms unless a permission is granted for offshore insurance by NIC. All four (4) respondents agreed to compliance to this directive among the IOCs. Related to this is the compliance to financial services related to petroleum activities reserved for indigenous activities. Two (2) respondents agreed to this, one (1) respondent disagreed to compliance and one (1) respondent was indifferent. The results indicate that IOCs are concerned about the financial development of the economy in which they invest, thus, they ensure that all financial services related to their activities are provided by local financial institutions. A resilient financial sector is a key local infrastructure that facilitates the implementation of the local content policy in the oil and gas sector (Kazzazi & Nouri, 2012; Tordo, Warner, Osmel, & Yahya, 2013). According to Tordo, et al. (2013) a stable and resilient financial sector drive price stability and encourage foreign direct investments and leverage trade agreements.

The results also indicate that the next compliance feature that is noted as value addition is the compliance to monitoring, compliance and enforcement of the regulation/law – L.I. 2204. This attests to the earlier discussion of the significance of monitoring compliance and enforcement of the regulation to the development of the upstream oil and gas sector in section 4.5 above. Two (2) respondents agreed that IOCs comply with monitoring activities as enshrined in the L.I. 2204

From the above, the compliance of compliance among IOCs that accrues to value creation are 5% ownership preference to local companies, giving local indigenes first preference to the provision

of goods and services in the upstream sector and foreign companies desiring to provide goods and services to enter into joint venture partnership with indigenous companies/investors

4.8 Research questions – relationship between local content and value creation (service companies' perspective

The relationship between local content and value creation was established by drawing up benefits service companies as a result of the promulgation of the L.I. 2204. The responses are presented in table 4.8 below

Table 4. 8: benefits of the local content policy from service companies' perspective

Benefits	Disagree & Strongly Disagree	Neutral	Agree & Strongly Agree
Indigenous companies are given preference for oil and gas contracts by the PC	1	1	3
Indigenous companies receive training to gain expertise in the provision of goods and services for the upstream oil and gas production	0	2	3
Jobs are created when contracts are approved to ensure efficient provision of the goods and services	0	2	3
Indigenous companies gained knowledge and skills in bid preparation based on both local and international standards	1	1	3
Indigenous companies have gained knowledge and skills in the quality controls in the provision of goods and services for the upstream oil and gas	0	1	4
Indigenous companies are given priority during the bidding process even when they don't have the lowest bid	3	1	1
PC provides supportive supervision in the implementation of the local content policy to safeguard local participation in the upstream oil and gas	0	1	4

Table 4.8 above shows the results of the benefits of the local content policy to the service companies. From the table, it can be said that local companies are given preference for oil and gas contracts by the PC since three (3) out of the five (5) respondents from the service companies agree to enjoying such benefit from the PC. One (1) of the respondents was indifferent, while one (1)

respondent disagreed on enjoying such benefits. Perhaps, this results is counteracted by the responses on giving indigenous companies priority during the bidding process even when they don't have the when they don't have the lowest bid. Out of the total respondents of five (5), three (3) disagree to this assertion, while one (1) was indifferent and one (1) agreed. This means that the service companies are not given highest priority in the bidding process for the provision of goods and services for the upstream oil and gas sector, thus, eliminating the rent-seeking services associated with upstream oil and gas sector. This corroborates with the results of Semykina (2015) which revealed that rent-seeking strategies is not beneficial for the growth of the oil and gas industry as well as the economy in Russia. According to Semykina (2015) the use of the local companies as primary suppliers for the oil and gas industry will create a spillover effects that spurs socioeconomic development and economic diversification.

Indigenous companies receive training to gain expertise in the provision of goods and services for the upstream oil and gas production. Three (3) of the respondents from the service companies, high agreed to enjoying such benefits due to the promulgation of the L.I. 2204. The remaining two (2) respondents were indifferent. This means in promoting local involvement and participation the service companies receive training and are given preference for oil and gas contracts in the upstream oil and gas sector. This findings corroborates with the results of Abio (2015) which revealed that through the EDC (Ghana) the service companies receive periodic skills and knowledge transfer that builds the expertise in the provision of goods and services. The expertise ranges from preparing contract bids and executing the contracts to meet international specification and standards. This builds up the confidence and hope of the service companies in expanding operations on one hand, and building the hop of the youth in gaining skilful employment in the upstream oil and gas sector, thus, stimulating economic growth, as revealed by Darkwah (2013).

Jobs are created when contracts are approved to ensure efficient provision of the goods and services. Three (3) respondents agreed that their service companies enjoy such benefits while two (2) respondents were indifferent. This means that job creation is the next high benefit accrued from the promulgation of the local content law – L.I. 2204. This corroborates with the results of Semykina (2015) and Bellema Ihua, et al. (2011) which revealed that the promulgation of the law/regulation L.I. 2204 has resulted in jobs created in Norway & Brazil and Nigeria, respectively. Job creation ultimately results to value creation among the local people since it provides avenues for knowledge, skills and technological transfer through training (Adedeji, Shaufique, Azwamani, & Law, 2015). Perhaps, effects of value addition can be only optimized with the number of jobs created, particularly, among the youth. Adedeji, Shaufique, Azwamani and Law (2015) established that a positive significant relationship between value creation and local content policy in Nigeria. However, the study revealed the influence of the local content policy on value creation is minimal since the number of jobs created are have not been enough to meet the expectation of the local community and people. This is attributed to the state of social unrest, uncalled militant activities and destruction of oil extraction equipments in the Niger Delta (Bellema Ihua, Abiodun Olabowale, Nnanna Eloji, & Ajayi, 2011). This means that Ghana may continue to enjoy the stability in the social setting of the local community if avenues for jobs are created to keep the hope of the youth alive as revealed by Darkwah (2013).

Indigenous companies have gained knowledge and skills in the quality controls in the provision of goods and services for the upstream oil and gas. This was agreed by four (4) respondents from the service companies, while one was indifferent. Indigenous companies gained knowledge and skills in bid preparation based on both local and international standards. Three (3) respondents agreed that service companies enjoy such benefits, while one (1) each was indifferent and

disagreed to enjoying such benefits, respectively. This means that the skills and knowledge transfer are the next high benefits the service companies derived from the promulgation of the local content policy – L.I. 2204. This corroborates with the findings of the Unam, et al. (2012) which established that the development of the local content policy has ensured that the services companies in the upstream oil and gas sector in Nigeria have the capacity to meet quality demands, particularly, ISO standards. This was achieved through partnership and alliance with foreign companies and research & development. This can be attributed to interactive network with relevant stakeholders including the PC facilitated EDC in Ghana (Abio, 2015). Although the interactive network is patronized by few well-established service companies, the study revealed that interactive network is become the gateway entry point for potential service companies to the upstream oil and gas sector. This have a positive implication for job creation and improved revenue need to stimulate economic growth and development in Ghana.

Four (4) of the respondents agreed that service companies enjoy benefit of supportive supervision in the implementation of the local content policy to safeguard local participation in the upstream oil and gas by the PC. One (1) person was indifferent. This indicates the highest benefit derived by the service companies resulting from the promulgation of the local content policy – L.I. 2204 is supportive supervision by PC to the service companies. This corroborates the results of Abio (2015) which revealed that service companies through the services of EDC receive support in gaining competitive edge in the upstream oil and gas sector in Ghana, thus, creating an interactive network between the PC and services companies in order to satisfy required provisions in the law/regulation – L.I. 2204.

4.9 Challenges

The challenges encounter by the selected players in the upstream oil and gas sector in the implementation of the L.I. – 2204 are presented as follows:

4.9.1 Challenges from the perspective of PC

Table 4. 9: Challenges from PC’s perspective

Challenges	Disagree &	Neutral	Agree &
	Strongly Disagree		Strongly Agree
Allocated funds for the enforcement and monitoring of the local content policy is woefully inadequate	3	8	8
Compliance among the local SMEs is low despite several information sessions held for the to aid their compliance	1	8	10
The capacities of the local SMEs are very low, and this require more time and resources to prepare them secure oil and gas contracts	0	5	14
The local content department is understaffed thus hindering effective supervision and monitoring of compliance among both the IOCs and the local SMEs	9	9	1
Most of the contracts received are strongly bundled, thus, it is very difficult to unbundled and allocate portions for local companies	9	5	5

Table 4.9 above shows that the PC highly agrees that the key challenge it encounters in the implementation of L.I. 2204 is the low capacity of the service companies which require more time and other resources to secure them oil and gas contracts. Out of the nineteen (19) respondents from the PC, fourteen (14) affirmed to this while five (5) were neutral. Related to this, the table shows

that PC agrees that compliance of the service companies is low despite the several information sessions held for them to aid compliance. Ten (10) out of the total respondents affirmed this while eight (8) were neutral and one (1) disagreed.

The table also shows that the PC bemoaned that funds allocated for monitoring and enforcement activities are woefully inadequate with eight (8) representatives affirm this situation. Eight (8) respondents were neutral while three (3) disagree to inadequate funds. Meanwhile, the most of the respondents from the PC disagrees that the local content department is understaffed to carry out effective supervision and compliance both the IOCs and the service companies. This means that the PC have the requisite staff capacity to handle its monitoring compliance function, thus, reiterating the importance of monitoring and supervision to the effectiveness of the local content directives in the upstream oil and gas sector in support to the assertion by Kazzazi and Nouri (2012). This denotes the 'political will' towards ensuring effective implementation of the law. According to Kazzazi and Nouri (2012) the critical success of the local content development depends largely on the political will of the government to promote the welfare of the local community.

The table also shows that the PC disagreed that most of the contracts submitted by the service companies are closely bundled, thus, it is not difficult to allocate portions for the service companies to execute. Nine (9) of the respondents disagreed to this, five (5) were neutral and the remaining five (5) agrees.

4.9.2 Challenges from the perspective of IOCs

The challenges to the implementation of the local content policy – L.I. 2204 from the perspective of the IOCs are presented in table 4.10 below:

Table 4. 10: Challenges from the perspective of IOCs

Challenges	Disagree & Strongly Disagree	Neutral	Agree & Strongly Agree
The cost of compliance is very high	0	0	4
The provisions of the legislative instrument are ambiguous	1	2	1
The local community is not skilled and knowledgeable in the line of business so foreign expertise is highly used even in areas where local expertise is needed	2	0	2
Local SMEs have low capacities; thus, it is difficult to engage their services	0	2	2
The local content committee delays in providing feedback on the local content plan submitted for approval	0	2	2
The bidding process for providing local services are sometimes manipulated in favour of the indigenous companies	0	2	2
Submitting every purchase order or contract to the PC for approval is monotonous and delays the upstream activities	0	2	2

Table 4.10 shows that the IOCs high agreed that the cost of compliance to the L.I. 2204 is very high since all the four (4) representatives agreed to this situation. This corroborates with the results of IMANI (2014) which revealed the high cost of compliance associated with the implementation of the local content policy and this results to inefficiencies in the allocation of resources. Ultimately, this will hinder the development of the competitive market for the upstream oil and gas in Ghana (OECD, 2016; Tordo, Warner, Osmel, & Yahya, 2013). According to Tordo, et al. (2013) high cost of compliance can create inefficiencies that will reduce the quality of products and services, thus, make activities in the sector uncompetitive.

The response on the ambiguity was not certain since only one (1) respondent agreed that the legislative was ambiguous while another one (1) respondent disagreed with two (2) respondents neutral.

The table also shows that the key challenges the IOCs encounter in their bid to comply with the legislative is the low skills and knowledge of the local community and the service companies. Thus, it is difficult to engage the services of the local companies. This corroborates that results of IMANI (2018) Azhagaliyeva and Kalyuhnova (2016) and Kazzazi and Nouri (2012) which reiterated that local expertise and capacity in terms of knowledge, skills and technological know-how is the key ingredient for local involvement, participation and ownership. This means that the government should provide resources that will ensure the capacity of the local community is built and enhanced in the provision of quality goods and services to ensure local participation and ownership using supportive supervision (*Adedeji, Shaufique, Azwamani, & Law, 2015*). This will result to strengthening local participation and expand job creation avenues. According to Adedeji, et al. (2015) the positive relationship between the local content policy and value creation can only be meaningful considering the number of jobs created and strength of local expertise.

The key challenge that hinders smooth compliance to the L.I. 2204 is the transparency in the process of awarding contracts. In the view of the IOCs, there is delays in providing feedback on the local content plan submitted for approval. Two (2) respondents agreed to this while the remaining two were neutral. Two (2) of the respondents for IOCs agreed that submitting every purchase order or contract to the PC for approval is monotonous and delays the upstream activities but, two (2) respondents again were neutral on this. Again, two (2) of the respondents from the IOCs agreed that the bidding process is sometimes manipulated to favour the indigenous companies, thus, reiterating the lack of transparency in the bidding and award of contract process

in the provision of goods and services by the service companies. This means that manipulating the bidding process to favour the indigenous companies is not hinder the smooth implementation of the regulation – L.I. 22014. This means that rent-seeking activities are not characterized with upstream oil and gas sector in Ghana, signifying high level of compliance among stakeholders at all levels, thus, corroborating the results of Semykina (2015).

4.9.3 Challenges from the perspective of service companies

The challenges the service companies encounter in their compliance to the L.I. 2204 are presented in table 4.11

Table 4. 11: Challenges from the perspective of service companies

Challenges	Disagree & Strongly Disagree		Agree & Strongly Agree
	Disagree	Neutral	Agree
The cost of compliance is very high	1	3	1
The bureaucratic procedures involved in the compliance of the local content policy is time consuming	3	0	2

Table 4.11 shows that the level of agreement on the cost of compliance is not guaranteed since one (1) respondent agreed to the high cost of compliance, one (1) respondent disagreed whiles three (3) respondents disagreed. The importance of cost of compliance has been discussed in section 4.9.2 above.

Further, the respondents disagreed to that bureaucratic procedures involved in the compliance of the local content policy is time consuming contrary to the assertion of the IOCs. The effects bureaucratic procedures are also explained in 4.9.2 above.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study sought to examine the impact of the local content policy and value creation in the upstream oil and gas sector in Ghana. This chapter, thus, presents the summary, conclusions and recommendations of the study.

5.2 Summary

Ghana upon the oil discovery developed the local content policy to guide upstream oil exploration and production in 2011 with the passage of Petroleum Commission Act, 2011 (Act 821). The overarching goal of the local content policy and regulation is expected to promote value creation through job creation, skills transfer, local participation in procurement strategies and local participation in financial services to stimulate economic growth. The promulgation of a regulation is critical for the upstream oil and gas extraction since the international oil companies who usually invest in the oil and gas companies in the developing countries are likely to engage expatriate skills, goods and services at the disadvantage of the local economy.

Subsequently, the government developed a legislative instrument (L.I. 2204) in 2017 to support the regulation by PC and ultimately to create the necessary avenues that will ensure local participation, involvement, and ownership in the upstream oil and gas sector, and promote value creation. The L.I. 2204, according to IMANI (2018), defines the process of implementing the local content requirements on one hand, and strengthen its relationship between local content requirement and value creation, on the other hand. However, IMANI (2018) indicated that this relationship cannot be strengthened without periodic evaluation of the successes and challenges

related to the implementation of the law/regulation. Therefore, this study examined the relationship between local content requirements enshrined in L.I. 2204 and value creation in the upstream oil and gas sector in Ghana. The specific objectives of the study were as follows:

1. To investigate the importance of the local content policy in the upstream oil and gas exploration in Ghana
2. To establish the relationship between the local content policy in the upstream oil and gas sector and value creation.

These objectives were achieved using a descriptive survey among the relevant stakeholders directly involved in the implementation of L.I. 2204. These are PC, IOCs and service companies. A self-administered questionnaire was developed and distributed among thirty (30) selected representatives of the selected stakeholders and twenty-eight (28) questionnaires were retrieved, thus, indicating high participation level of 93.33%. This comprised of nineteen (19) representatives of PC, four (4) representatives of IOCs and five (5) representatives of service companies. The sample for the study was selected using purposive sampling technique. Data collected was analyzed using quantitative analysis technique – mean score. The findings of the study are summarized as follows:

All the respondents know about the existence of the L.I. 2204 which is meant to regulate the activities on the relevant stakeholders, i.e., PC, IOCs and service companies in the upstream oil and gas sector in Ghana.

The majority of the respondents indicates that the purpose of L.I. 2204 is to promote and protect the use of local resources in the upstream oil and gas and job creation, thus encouraging participation

The features of the local content policy (L.I. 2204) are General provision, local content plan, employment and training sub-plan, research & development, technology transfer programme, local insurance and financial services content, legal services, submission of report, and monitoring, compliance and enforcement.

Among these features, the PC has highly upheld its mandate of monitoring compliance and enforcement of the law among both the IOCs and the service companies, and ensuring contracts have a detailed employment and training plan

The significance of the L.I. 2204 is to build the capacity of local companies to effectively and efficiently participate in the oil exploration and production.

The components of the L.I. 2204 that accrue value creation are giving indigenous companies the right to 5% equity participation in IOCs, allowing IOCs who intend to provide goods and services to enter into joint venture with indigenous companies with at least 10% equity participation, and insurance risks related to petroleum activities in Ghana are reserved for indigenous brokerage unless permission is granted for offshore insurance by NIC. These provisions are highly complied with among the IOCs

The benefits of the local content policy to the service companies are supportive supervision provided by the PC and creation of jobs when contracts are awarded. Another benefit highly experienced among the service companies is the knowledge and skills in quality controls in the provision of goods and service for upstream oil and gas.

The key challenge of the implementation of the local content policy is the high compliance cost, particularly, associated with delays and bureaucracies that result to inefficiencies in resource allocation and hinders economic diversification in the economy.

5.3 Conclusion

Based on the findings above, the study concludes that local content policy drives value creation in the upstream oil and gas sector in Ghana as revealed by countries engaged in oil and gas exploration and production such as Nigeria, Norway, Australia and Brazil. Value creation is accrued due to the commitment of the PC to regulate mandate through monitoring compliance and enforcement among IOCs and service companies as revealed by Azhagaliyeva and Kalyuhnova (2016). This promotes efficient allocation of resources to improve on job creation and building local expertise to encourage local participation, involvement and ownership, which is the overarching goal of the L.I. 2204. However, sustenance of accruing value addition from the implementation of the local content policy can be hindered by the high cost of compliance among arising from delays and bureaucracies associated with contract approval. The delays continue to exist since every contract is submitted to the PC for approval.

5.4 Recommendations

The recommendations of the study are as follows:

1. The government should increase funds and improve its allocation other resources to the PC to strengthen its supportive supervision and monitoring compliance and enforcement of the L.I. 2204 among the IOCs and service companies.
2. The duration involved in the scrutinizing and approval of contracts should be reviewed to ensure that timely approval of contracts, commencement of projects and the efficiency of meeting contract/projects deliverables.
3. The entire L.I. 2204 should be reviewed to make it fit for purpose and correct the monotony associated with its implementation, particularly, constant delays associated with contract

approvals. The review should be supported with capacity and infrastructure to ensure the realization of the objectives and deliverables set in the legislation.

4. There should be periodic capacity building workshops on quality controls in the provision of goods and services for the upstream oil and gas, to ensure local expertise is enhanced to meet international standards, thus, improving the competitiveness of the service companies at national and international levels.
5. Review the L.I. 2204 to make it fit for purpose. It should be supported by government - capacity and infrastructure and industrialization

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APPENDICES

Appendix 1: Questionnaire for PC

My name is Agnes Ashun and I'm currently pursuing my master's degree in Development Finance (MDEF) with the University of Ghana, Business School. As part of my course, I'm conducting a survey on the topic "***Local Content Policy and Value Creation: The Case of Upstream Oil and Gas Extraction in Ghana***". The purpose this questionnaire is to solicit information that will help examine the impact of local content policy and implementation on job creation and skills training in the upstream oil and gas sector in Ghana. Information provided will be used for academic purposes only and will be kept confidential and anonymous.

Your participation in the survey is strictly voluntary and you should be free to opt out anytime when you wish to do so. Your time and cooperation is extremely appreciated. Thank you.

Please TICK [] where appropriate

Section A - Demographics

1. Sex: Male [] Female []
2. Which of the following organizations do you work with?
 - a. [] Petroleum Commission
 - b. [] International oil and gas company
 - c. [] Local SME
 - d. [] Other: Specify
3. How long have you been working with your company?
 - a. [] 0-2 years
 - b. [] 3-5 years
 - c. [] 6-7 years
 - d. [] 8-9 years
 - e. [] 10 years and above.
4. What is your role in your organization?
 - a. [] Director
 - b. [] Manager
 - c. [] Officer
 - d. [] Other, specify

Section B: the feature of the local content policy

This section requires you to provide responses on the features of the local content policy. Indicate your preferred choice of response. No multiple response options available

5. Do you know about the LI 2204 Petroleum (Local Content and Local Participation) Regulation?
- a. Yes
 - b. No

If you tick No, you cannot go on answering the remaining questions. Thank you for your time.

If you tick YES, you can continue to question 7.

6. What is the purpose for promulgation of the law?
- a. To regulate the upstream oil and gas sector
 - b. To protect the local companies in the provision of goods and services in the sector
 - c. To build the capacity of the local people to take over the upstream oil and gas sector from the Multinational Companies (MNCs)
 - d. To promote and protect the use of local resources in the upstream oil and gas and job creation, thus encouraging participation.
 - e. Other, specify.....
7. What are the features of the law/regulation?
- a. General provisions on local content requirements in the upstream oil and gas sector
 - b. Local content plan, minimum requirement for local companies, basis of bid evaluation and review
 - c. Requirement for employing local people, plan for training and succession plan
 - d. General provision, local content plan, employment and training sub-plan, research & development, technology transfer programme, local insurance and financial services content, legal services, submission of report, and monitoring, compliance and enforcement.

Comprehensive features of the local content law	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
venture with indigenous companies, with at least 10% equity participation					
MNCs should provide strategies for the transfer of technology and skills to indigenes					
Giving local companies the first preference in the provision of goods and services in the sector					
Recruitment of only Ghanaians to the middle and junior level positions					
Providing room for on-the-job training for indigenes to occupy positions held by non-Ghanaians (succession planning)					
Other, specify:					
Local content plan					
Contactors and sub-contractors, who wish to undertake a petroleum activity submit a local content plan for approval by the Petroleum Commission (PC)					
The local content committee review the plan for within 25 working days and submit its report to the PC					
Collective bargaining agreement entered by the contractors and sub-contractors are based on the Labour Act, 2003 (Act 651)					
The PC and the Minister determines the minimum local content level to be achieved in the work programme of the contractors and sub-contractors					
Contractors and sub-contractors establish and implement a bidding process a bidding process for the acquisition of goods and services to give preference to indigenous Ghanaian companies					
Award of contract is based not solely on the principle of lowest bidder					
A Ghanaian bidder who does not have the lowest bid shall not be disqualified					

Comprehensive features of the local content law	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
The PC has established a bid evaluation guidelines with applicable laws to ensure year-on-year progression of the local content objectives					
Each proposed contract or purchase order by the contractor or the sub-contractor is submitted to the PC					
The proposed contract or purchase order clearly states whether contract is soled sourced or sourced through competitive bidding					
The PC communicates its approval or otherwise of the proposed contract or purchase order within 10 working days					
The contractor or the sub-contractor submits a forecast of its activities on the 1 st day of each quarter to the PC for review					
All contract documents relevant to the contract or purchase order is duly submitted to the PC by the contractor or sub-contractor during the bidding process					
PC reviews contracts of the contractor, sub-contractor or allied entities each quarter					
PC communicates to the respective companies on the outcome of the review					
Other, specify:					
Employment and training plan					
The contractor, sub-contractor, and allied entity submits employment and training plan to the PC as part of the local content plan					
The contractor, sub-contractor, and allied entities provide detailed report on the employment and training plan quarterly to the PC					
The employment and training plan report include the number of new Ghanaian employees engaged and job descriptions					

Comprehensive features of the local content law	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
Where Ghanaians are not employed due to lack of skill and expertise, the PC makes sure a Ghanaian is duly trained purposively					
As part of the employment and training plan, a succession plan is also submitted to the PC					
Ghanaians are required to understudy a non-Ghanaian so that vacant positions are occupied by the Ghanaian					
Junior and middle level positions are reserved for only Ghanaians					
Other, specify:					
Research and research development plan					
The contractors, sub-contractors or allied entities submit research development plan with its accompanied budget to the PC for the promotion of education, practical attachments, training and R&D in the country					
The plan outlines a 3-5 year revolving programme for R&D initiatives					
The plan is reviewed annually and submitted to the PC					
Technology transfer programmes and reports					
The PC has developed a national policy on technology transfer with respect to the petroleum industry					
The national policy of technology transfer is Gazetted and circulated in the national newspaper					
The PC carries out and support programmes in accordance with the policy					
The contractors, subcontractors and allied entities support and facilitate the process of technological transfer to Ghanaians					

Comprehensive features of the local content law	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
The contractors, subcontractors and allied entities submit an annual technology transfer to the PC stating which outcomes of such transfers					
Local insurance local content					
Insurable risks related to petroleum activities in Ghana reserved for indigenous brokerage unless the permission is granted for offshore insurance by NIC					
Other, specify:					
Financial services content					
Financial services related to petroleum activities in Ghana reserved for indigenous financial institutions					
Financial services provided by foreign financial institutions are approved by the PC before the services began					
Contractors, sub-contractors or allied entities shall submit report of financial services plan					
All organizations in upstream petroleum activities operates a bank account in Ghana					
Other, specify:					
Legal services content					
Contractors and allied entities engage only Ghanaian legal practitioners for legal services					
Contractors and allied entities submits report of legal services utilized in the country to the PC					
Other, specify:					

Comprehensive features of the local content law	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
Local content performance reporting					
Contractors and allied entities submit annual local content performance report to the PC					
All information contained in the local content performance report of the contractors and allied entities are verified by the PC					
Third party reports on the local content performance is allowed and approved by the PC					
PC or designated officer of the contractor and allied entities verifies the contents of the report					
Other, specify:					
Data and information on local content					
PC has established a Common Qualification System in consultation of relevant stakeholders					
PC manages the Common Qualification System in accordance with relevant regulations					
The system is used for the registration and pre-qualification of local content in the petroleum industry					
The system helps in the verification of contractor' capacities, assess local content applications and monitor performance					
Other, specify:					
Monitoring, compliance and enforcement of the regulations					
PC monitors and investigates the activities of all contractors and allied entities to ensure the achievement of the purpose of the local content policy					
PC enforces the implementation of the policy by initiating investigation to					

Comprehensive features of the local content law	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
ensure indigenization principle is not diluted					
PC enforces the implementation of the policy by initiating investigation to avoid bid rigging and cartelization in the procurement processes					
Any offenses related to the local content policy is punishable by law					
Other, specify:					

Section E – challenges involved in the enforcement and monitoring of the implementation of the local content policy in the upstream oil and gas sector in Ghana

This section solicits information on the challenges faced by PC in the enforcement and monitoring of the implementation of the local content policy for the upstream oil and gas sector in Ghana.

Indicate your level of agreement or disagreement using the scale 1 – 5 as follows

Features	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
Allocated funds for the enforcement and monitoring of the local content policy is woefully inadequate					
Compliance among the local SMEs is low despite several information sessions held for the to aid their compliance					
The capacities of the local SMEs are very low and this require more time and resources to prepare them secure oil and gas contracts					

Features	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
The local content department is understaffed thus hindering effective supervision and monitoring of compliance among both the IOCs and the local SMEs					
Most of the contracts received are strongly bundled, thus, it is very difficult to unbundled and allocate portions for local companies					
Other, specify					

Thank you!!!

Appendix 2: Questionnaire for IOCs

My name is Agnes Ashun and I'm currently pursuing my Master's degree in Development Finance (MDEF) with the University of Ghana, Business School. As part of my course, I'm conducting a survey on the topic **"Local Content Policy and Value Creation: The Case of Upstream Oil and Gas Extraction in Ghana"**. The purpose this questionnaire is to solicit information that will help examine the impact of local content policy and implementation on job creation and skills training in the upstream oil and gas sector in Ghana. Information provided will be used for academic purposes only and will be kept confidential and anonymous.

Your participation in the survey is strictly voluntary and you should be free to opt out anytime when you wish to do so. Your time and cooperation is extremely appreciated. Thank you.

Please TICK [] where appropriate

Section A - Demographics

9. Sex: Male [] Female []

10. Which of the following organizations do you work with?

e. [] Petroleum Commission

f. [] International oil and gas company

g. [] Local SME

h. [] Other: Specify

11. How long have you been working with your company?

f. [] 0-2 years

g. [] 3-5 years

h. [] 6-7 years

i. [] 8-9 years

j. [] 10 years and above.

12. What is your role in your organization?

a. [] Director

b. [] Manager

c. [] Officer

d. [] Other, specify

13. How long has your company been operating in Ghana?

- a. 0-2 years
- b. 3-5 years
- c. 6-7 years
- d. 8-9 years
- e. 10 years and above.

Section B: the feature of the local content policy

This section requires you to provide responses on the features of the local content policy.

Indicate your preferred choice of response. No multiple response options available

1. Do you know about the LI 2204 Petroleum (Local Content and Local Participation) Regulation?

- c. Yes
- d. No

If you tick No, you cannot go on answering the remaining questions. Thank you for your time.

If you tick YES, you can continue to question 7.

2. What is the purpose for promulgation of the law?

- f. To regulate the upstream oil and gas sector
- g. To protect the local companies in the provision of goods and services in the sector
- h. To build the capacity of the local people to take over the upstream oil and gas sector from the Multinational Companies (MNCs)
- i. To promote and protect the use of local resources in the upstream oil and gas and job creation, thus encouraging participation.
- j. Other, specify.....

3. What are the features of the law/regulation?

- a. General provisions on local content requirements in the upstream oil and gas sector
- b. Local content plan, minimum requirement for local companies, basis of bid evaluation and review
- c. Requirement for employing local people, plan for training and succession plan

- d. General provision, local content plan, employment and training sub-pan, research & development, technology transfer programme, local insurance and financial services content, legal services, submission of report, and monitoring, compliance and enforcement.
- e. Other, specify.....

Section C: significance of the local content policy for the upstream oil and gas sector in Ghana

This section requires respondents to identify the significance or importance of the local content policy for the upstream oil and gas sector in Ghana. Indicate your preferred choice of response. No multiple response options available

- 4. What the importance of the local content policy for the upstream oil and gas sector in Ghana?
 - a. To create jobs
 - b. To add value to the local people through training and skills transfer in oil exploration and production.
 - c. To build the capacity of local companies to effectively and efficiently participate in the oil exploration and production.
 - d. To enhance the competitiveness of local companies on the global market.
 - e. All of the above

Level of compliance of the local content policy among IOCs

This section solicits information on the level of compliance of the local content policy among IOCs in the upstream oil and gas sector in Ghana. Indicate your level of agreement or disagreement using the scale 1 – 5 as follows

Value creation	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
Giving indigenous companies the first preference in the grant of petroleum agreement or license					
Giving indigenous companies the right to 5% equity participation in MNCs					
Allowing MNCs who intends to provide goods and services to enter					

Value creation	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
into a joint venture with indigenous companies, with at least 10% equity participation					
MNCs should provide strategies for the transfer of technology and skills to indigenes					
Giving local companies the first preference in the provision of goods and services in the sector					
Recruitment of only Ghanaians to the middle and junior level positions					
Providing room for on-the-job training for indigenes to occupy positions held by non-Ghanaians (succession planning)					
Allowing Ghanaians to participate in research and development activities in the sector					
Insurable risks related to petroleum activities in Ghana reserved for indigenous brokerage unless the permission is granted for offshore insurance by NIC					
Financial services related to petroleum activities in Ghana reserved for indigenous financial institutions					
Monitoring, compliance and enforcement of the regulations					
Other, specify:					

Section D – the challenges in the implementation of the local content policy

This section solicits information on the challenges IOCs encounter in the compliance to the local content policy for the upstream oil and gas sector in Ghana. Indicate your level of agreement or disagreement using the scale 1 – 5 as follows

Features	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
The cost of compliance is very high					
The provisions of the legislative instrument are ambiguous					
The local community is not skilled and knowledgeable in the line of business so foreign expertise is highly used even in areas where local expertise is needed					
Local SMEs have low capacities, thus, it is difficult to engage their services					
The local content committee delays in providing feedback on the local content plan submitted for approval					
The bidding process for providing local services are sometimes manipulated in favour of the indigenous companies					
Submitting every purchase order or contract to the PC for approval is monotonous and delays the upstream activities					
Other, specify					

Section E – improvement of the local content

Briefly suggest ways to improve the local content policy requirements in the upstream oil and gas sector

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Thank you!!!

Appendix 3: Questionnaire for service companies

My name is Agnes Ashun and I'm currently pursuing my Master's degree in Development Finance (MDEF) with the University of Ghana, Business School. As part of my course, I'm conducting a survey on the topic **"Local Content Policy and Value Creation: The Case of Upstream Oil and Gas Extraction in Ghana"**. The purpose this questionnaire is to solicit information that will help examine the impact of local content policy and implementation on job creation and skills training in the upstream oil and gas sector in Ghana. Information provided will be used for academic purposes only and will be kept confidential and anonymous.

Your participation in the survey is strictly voluntary and you should be free to opt out anytime when you wish to do so. Your time and cooperation is extremely appreciated. Thank you.

Please TICK [] where appropriate

Section A - Demographics

14. Sex: Male [] Female []
15. Which of the following organizations do you work with?
- i. [] Petroleum Commission
 - j. [] International oil and gas company
 - k. [] Local SME
 - l. [] Other: Specify
16. How long have you been working with your company?
- k. [] 0-2 years
 - l. [] 3-5 years
 - m. [] 6-7 years
 - n. [] 8-9 years
 - o. [] 10 years and above.
17. What is your role in your organization?
- a. [] Director
 - b. [] Manager
 - c. [] Officer
 - d. [] Other, specify

18. How long has your company been operating in Ghana?

- f. 0-2 years
- g. 3-5 years
- h. 6-7 years
- i. 8-9 years
- j. 10 years and above.

19. What services do you provide to the in the upstream petroleum activities?

- a. Freight forwarding and cargo services
- b. Logistics services
- c. Catering services
- d. Maintenance services
- e. Legal services
- f. Fleet services

Section B: the feature of the local content policy

This section requires you to provide responses on the features of the local content policy.

Indicate your preferred choice of response. No multiple response options available

20. Do you know about the LI 2204 Petroleum (Local Content and Local Participation) Regulation?

- e. Yes
- f. No

If you tick No, you cannot go on answering the remaining questions. Thank you for your time.

If you tick YES, you can continue to question 7.

21. What is the purpose for promulgation of the law?

- k. To regulate the upstream oil and gas sector
- l. To protect the local companies in the provision of goods and services in the sector

- m. To build the capacity of the local people to take over the upstream oil and gas sector from the Multinational Companies (MNCs)
- n. To promote and protect the use of local resources in the upstream oil and gas and job creation, thus encouraging participation.
- o. Other, specify.....

22. What are the features of the law/regulation?

- a. General provisions on local content requirements in the upstream oil and gas sector
- b. Local content plan, minimum requirement for local companies, basis of bid evaluation and review
- c. Requirement for employing local people, plan for training and succession plan
- d. General provision, local content plan, employment and training sub-plan, research & development, technology transfer programme, local insurance and financial services content, legal services, submission of report, and monitoring, compliance and enforcement.
- e. Other, specify.....

Section C: significance of the local content policy for the upstream oil and gas sector in Ghana

This section requires respondents to identify the significance or importance of the local content policy for the upstream oil and gas sector in Ghana. Indicate your preferred choice of response. No multiple response options available

23. What the importance of the local content policy for the upstream oil and gas sector in Ghana?

- a. To create jobs
- b. To add value to the local people through training and skills transfer in oil exploration and production.
- c. To build the capacity of local companies to effectively and efficiently participate in the oil exploration and production.
- d. To enhance the competitiveness of local companies on the global market.
- e. All of the above

Section D – Benefits of the local content policy

This section solicits information on the benefit of the local content policy to local SMEs. Indicate your level of agreement or disagreement using the scale 1 – 5 as follows

Value creation	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
Indigenous companies are given preference for oil and gas contracts by the PC					
Indigenous companies receive training to gain expertise in the provision of goods and services for the upstream oil and gas production					
Jobs are created when contracts are approved to ensure efficient provision of the goods and services					
Indigenous companies gained knowledge and skills in bid preparation based on both local and international standards					
Indigenous companies have gained knowledge and skills in the quality controls in the provision of goods and services for the upstream oil and gas					
Indigenous companies are given priority during the bidding process even when they don't have the lowest bid					
PC provides supportive supervision in the implementation of the local content policy to safeguard local participation in the upstream oil and gas					
Other, specify:					

Value creation	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
.....					
.					

Section E – the challenges in the implementation of the local content policy

This section solicits information on the challenges SMEs encounter in the compliance to the local content policy for the upstream oil and gas sector in Ghana. Indicate your level of agreement or disagreement using the scale 1 – 5 as follows

Features	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
The cost of compliance is very high					
The bureaucratic procedures involved in the compliance of the local content policy is time consuming					
Other, specify					

Thank you!!!