DETERMINANTS OF LOCAL CONTENT IMPLEMENTATION IN
UPSTREAM OIL AND GAS IN KENYA: A CASE OF AFRICA OIL
CORPORATION

BY

LEPARAN GIDEON MORINTAT

UNITED STATES INTERNATIONAL UNIVERSITY - AFRICA

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UNITED STATES INTERNATIONAL UNIVERSITY - AFRICA

SUMMER 2019
STUDENT’S DECLARATION

I declare this work has not been submitted to any other university other than United States International University - Africa, it is my original work which has been submitted for academic purposes.

Signed: ________________________  Date: ________________________
Morintat, Leparan Gideon (655891)

This project has been presented for examination with my approval as the appointed supervisor.

Signed: ________________________  Date: ________________________
Dr. Joyce W. Ndegwa, PhD.

Signed: ________________________  Date: ________________________
Dean, Chandaria School of Business
ABSTRACT

Petroleum exploration activities in Kenya began in the 1950s within the Lamu basin. It was not until 2012 when the first oil discovery was made in the tertiary rift basin. To date, over 86 oil wells have been drilled with a majority of them in the tertiary rift. Over 4 billion barrels of crude oil reserves have been encountered in the Lokichar sub-basin by Tullow Plc and its partners among them Africa Oil Corporation, with recovery oil estimated to be 750 million barrels. The joint venture partners and the government of Kenya have since concluded negotiations around key fiscal and commercial principles for ‘project oil Kenya’ with agreements between the parties documented in various signed ‘Heads of Terms’. The infrastructure installed for the foundation stage of the project will be utilized for the development of the remaining oil fields and future oil discoveries in the region. Africa Oil Corp. has a 25% working interest in ‘project oil Kenya’ with Tullow Oil Plc (50% and Operator) and Total S.A. (25%) holding the remaining interests.

The general objective of this study was to examine the determinants of local content implementation in upstream oil and gas in Kenya with a cased study of Africa Oil Corporation. The study was guided by the following research objectives; to establish the effect of local infrastructure on successful implementation of local content, to determine the effect of local capabilities on successful implementation of local content in Africa Oil Corporation and to determine the effect of local policies on successful implementation of local content in Africa Oil Corporation.

This study adopted descriptive survey design as its research design to integrate various elements of the study to meet its intended objectives. The study had a population of 106 employees working at Africa Oil Corporation, stratified sampling technique was deployed yielding a sample size of 84 respondents. A questionnaire was deployed to collect primary data from the target respondents, whereby descriptive statistics analyzed means and standard deviations while inferential statistics analyzed correlation and regression analysis. Data analysis involved both descriptive and inferential statistics and SPSS software version 24 was used in analyzing data. The findings were presented using tables and figures. This study sought to determine the effect local infrastructure on successful implementation of local content at Africa Oil Corporation. The findings of this study revealed that there exists a significant relationship between local infrastructure and successful implementation.
of local content, r (0.753); p-value < 0.01. The findings further revealed that local infrastructure contributes to 56% of variation in successful implementation of local content. This study sought to determine the effect of local capabilities on successful implementation of local content at Africa Oil Corporation. The findings revealed that there is a significant relationship between local capabilities and successful implementation of local content at Africa Oil Corporation, r (0.753); p-value < 0.01. The findings also revealed that local capabilities contributes to 9.3% variation in successful implementation of local content.

This study sought to determine the effect of local capabilities on successful implementation of local content at Africa Oil Corporation. The findings revealed that there is a positive and significant relationship between local capabilities and successful implementation of local content, r (0.728); p-value < 0.01.

This study finds that there is a significant relationship between local infrastructure and successful implementation of local content. This study concludes that local infrastructure enhances certain conditions like information technology, local company’s needs, and standards, social, educational in the local petroleum, which are essential in implementing local content. This study concludes that local capabilities plays a crucial role in successful implementation of local content. This study concludes that having the right knowledge and funding put together enhances results for the successful implementation of local content. This study concludes that local policies (both government and organization) are essential for successful implementation of local content.

This study recommends that Africa Oil Corporation should invest in the necessary local infrastructure for successful local content implementation in their upstream oil and gas in the country. Since this study established a significant relationship between local capabilities and successful implementation of local content, this study recommends that Africa Oil Corporation should develop technological and human resource capabilities for sustainable local content implementation in its operations. This study recommends that Africa Oil Corporation collaborate with the government and other oil exploration companies in Kenya to develop necessary policies that are essential for successful implementation of local content.
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DEDICATION

This project report is dedicated to my beloved wife Eva Naneu, my sons Mirishoi and Lempiriss and to my daughters Naisula and Nashami.
TABLE OF CONTENTS

STUDENT'S DECLARATION .......................................................... ii
ABSTRACT .................................................................................. iii
COPYRIGHT ................................................................................ v
ACKNOWLEDGEMENT .................................................................. vi
DEDICATION ................................................................................ vii
LIST OF TABLES ........................................................................... x
LIST OF FIGURES ......................................................................... xi
LIST OF ABBREVIATIONS ............................................................. xii

CHAPTER ONE ............................................................................... 1
1.0 INTRODUCTION ....................................................................... 1
  1.1 Background of the Study ......................................................... 1
  1.2 Statement of the Problem ....................................................... 5
  1.3 General Objective ................................................................. 7
  1.4 Specific Objectives ............................................................... 7
  1.5 Significance of the Study ....................................................... 7
  1.6 Scope of the Study ............................................................... 8
  1.7 Definitions of Terms ............................................................ 8
  1.8 Chapter Summary ............................................................... 9

CHAPTER TWO ............................................................................... 11
2.0 LITERATURE REVIEW ........................................................... 11
  2.1 Introduction ........................................................................... 11
  2.2 Local Infrastructure and Implementation of Local Content ........ 11
  2.3 Local Capabilities and the Implementation of Local Content ....... 15
  2.4 Local Policies and Implementation of Local Content ............... 20
  2.5 Chapter Summary ............................................................... 25
LIST OF TABLES

Table 4.1: Response Rate ............................................................................................................. 31
Table 4.2: Descriptive Statistics for Local Infrastructure and Implementation of Local Content .................................................................................................................. 35
Table 4.3: Correlation Analysis between Local Infrastructure and Implementation of Local Content .................................................................................................................. 36
Table 4.4: Regression Test for Local Infrastructure and Implementation of Local Content .................................................................................................................. 36
Table 4.5: ANOVA for Local Infrastructure and Implementation of Local Content ..... 37
Table 4.6: Coefficients for Local Infrastructure and Implementation of Local Content . 37
Table 4.7: Descriptive Statistics for Local Capabilities and Implementation of Local Content .................................................................................................................. 39
Table 4.8: Correlation between Local Capabilities and Implementation of Local Content .................................................................................................................. 39
Table 4.9: Regression Analysis between Local Capabilities and Implementation of Local Content .................................................................................................................. 40
Table 4.10: Analysis between Local Capabilities and Local Content Implementation ... 41
Table 4.11: Coefficients of Local Capabilities and Implementation of Local Content ... 41
Table 4.12: Descriptive Statistics for Local Policies and Implementation of Local Content .................................................................................................................. 43
Table 4.13: Correlation between Local Policies and Local Content Implementation ..... 44
Table 4.14: Regression Analysis between Local Policies and Implementation of Local Content .................................................................................................................. 45
Table 4.15: ANOVA between Local Policies and Implementation of Local Content ..... 45
Table 4.16: Coefficient for Local Policies and Local Content Implementation .......... 46
LIST OF FIGURES

Figure 4. 1: Respondents Gender ................................................................................................. 32
Figure 4. 2: Respondents Age ...................................................................................................... 32
Figure 4. 3: Number of Years in the Organization ....................................................................... 33
Figure 4. 4: Education .................................................................................................................. 33
# LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>AOC:</th>
<th>Africa Oil Corporation</th>
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<tbody>
<tr>
<td>EP:</td>
<td>Exploration and Production</td>
</tr>
<tr>
<td>GPS:</td>
<td>Global Positioning Systems</td>
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<tr>
<td>FID:</td>
<td>Final Investment Decision</td>
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<tr>
<td>IMF:</td>
<td>International Monetary Fund</td>
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<td>IOCs:</td>
<td>International Oil Corporations</td>
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<tr>
<td>IT:</td>
<td>Information Technology</td>
</tr>
<tr>
<td>MBA:</td>
<td>Master of Business Administration</td>
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<tr>
<td>NACOSTI:</td>
<td>National Commission for Science, Technology &amp; Innovation</td>
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<tr>
<td>PSC:</td>
<td>Production Sharing Contract</td>
</tr>
<tr>
<td>RBV:</td>
<td>Resource Base View</td>
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<td>SPSS:</td>
<td>Statistical Package for Social Sciences</td>
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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

Local content is an approach where a country strategize on how their resources are used to benefit the locals and attain substantive significance level of social, economic and sustainable progressiveness (Owusu & Vaaland, 2016). It is a policy that has evolved from creating linkages by supplying input to the local economy through the transfer of technology, the creation of local employment opportunities, and increasing the local ownership and control of resources. The local content priorities are to bring value to a host nation, regional and local areas in that country, including communities through the activities of the oil and gas industry (Ihua & Ajayi, 2011). This may be measured by project affiliate of country aggregate and undertaken through activities which mainly include the workforce development International oil companies, national oil companies, contractors and sub-contractors. The local content approach is used in many countries; this strategy however, is used in different ways depending on the economic conditions of a country. In most cases, the progressiveness of the country’s economy depends on the economic fundamentals (Rouse, 2016).

Local content policies have the potential to stimulate broad based economic development, which is necessary to alleviate poverty, achieve prosperity, and ensure sustainable economic and social outcomes (Arruda, 2014). The use of specialized inputs and technological complexity of the petroleum sector often limits the possibility of developing links into local economy. Local content is part of the broader category of policy interventions aiming to strengthen the productive structure of a particular economy, their success largely depends on their interaction and coherence with broader economic development policies and implementation tools. Is therefore possible that, for example the success of regulatory interventions to increase local employment in the oil and gas sector may require an improvement in the quality of education, changes in labor mobility, improvement in infrastructure etcetera (Salimu, 2016).

In most developed countries such as United States of America, the local content concept has been implemented in the form of the so-called local content bill, this bill is currently working its way to the house of representatives and would require that up to 90% of an automobile component be made in United States as a pre-condition for sale in the county
(Tobias, 2017). Local content leverage economic diversification through the extractive industry which may require stable macro-economic policies that attract foreign investment, provide more leverage in trade agreements and improve the financial market (Arruda, 2014). The issue around local content policies in the US and its associated regulations has been contentious for decades, however local content policies became considered as a significant development mechanism in developed economies in recent times (Ayentimi, 2016).

In the United Kingdom, over the last 40 years, the country has been successful in developing their local content. These developed countries have been active in both the upstream and downstream oil industries. Based on these successful experiences, other oil exporting enterprises have taken positive approach towards local content development to increase the benefits from oil and gas extraction (Sen, 2018). The primary reason for implementation of local content has evolved from creating local employment opportunities and increasing local ownership and control. They also create forward linkages which is processing the sectors output prior to export through for instance the establishment of refineries, petrochemical industry and the production of fertilizers (Fred, Nduhura, & Agaba, 2018).

In Malaysia, being one of the major producers of oil contributing to the production of nearly 2 million barrels per day and 500 million cub feet natural gas, the company has developed its local content since its oil output seem to be declining and domestic demand rises (Kazzazi & Nouri, 2012). The government of Malaysia describes the in country values as the total spend that is retained in the nation that benefits the development of business and contributes to human capability development and stimulation of the country’s economy. The country emphasize on the availability of products and services that are offered by Malaysia for producers of petroleum in the country. Despite its appeal, local content fails to meet the country’s expectations, this is can be traced based on a vast historical evidence that demonstrates the failure of nations in capturing and retaining more value when exploiting natural resources. Common challenges include’ lacking a strategic vision, insufficient consideration of the changing capacities and resources in the nation and poorly designed implementation strategies (Marcel, Roger, & Paul, 2016).
Most African countries that have discovered oil and gas attracted foreign companies to explore and develop these resources. This was accomplished through signing of contracts with companies in exchange for a share of the revenues. In order to ensure that the nation benefitted from the resource extraction, several countries formed National Oil Companies to function as a key agency in the exploration and development process (Salimu, 2016). The continent has historically provided opportunities for international oil and gas companies to spearhead oil exploration and production activities and to acquire interest in the fields with unexplored economic potential. Local content has become more important to these countries following the global fluctuations of oil prices. National oil companies in most African countries have an important role to play in the development and implementation of the local content (Amponsah-Tawiah, 2015).

In Nigeria, the government has set a minimum local content target of 75% by 2010 for all works and contracts to be undertaken in or on behalf of all oil and gas companies operating in the Nigerian oil and gas industry. The target is fully supported by the oil and gas companies operating in Nigeria. To meet this target a number of processes are now in place including a contract evaluation and award criteria that favors bids which meet or exceed the minimum local content target (Cindy, 2015).

In Egypt, with the presence of high economic states, the intervention by the government in oil and gas industry are wide spreading creating potentials for wrestling over the returns on investment with international oil corporations (IOCs) (Eldomiaty, Lofty, & Rashwan, 2016). In addition to that, high economic stakes and the weak market fundamental as a result of energy subsidy posing huge challenges for the IOCs to invest in Egypt and met the rapidly increasing demand. Subsidies from the Egyptian government keep domestic gas prices too low which is accompanied by increase in political risks, therefore, international oil corporations should consider a comprehensive measure of exploration investments (Owusu & Vaaland, 2016). Consequently, the assessment of the company-level and country-level of oil and gas exploration investment in Egypt could encourage regulations to enhance informative decisions. The amount carried by exploration investment is important to the company as long as the financing of its resources are considered.
According to Obeng-Odoom (2018), oil and gas investments in Angola have been widely supported by mechanisms for the development of the country. Despite the sector being characterized by major accidents, the narratives of oil based developmentalist suggest that such accidents can be merely isolated incidents which are administratively addressed through education of certain individuals or corrected though individually targeted postevent legislation. The existing policies governing the oil sector in Angola focuses on improving technology, instituting and enforcing more environmental regulations and the pursuit of economic nationalism which is in the form of withdrawing from globalization are considered ineffective. Although Angola have adopted specific local content framework, to date no comparative assessment has been undertaken to provide insights into best practices which can help inform other countries in Africa that are still developing the local content for the oil and gas sector (Cindy, 2015).

In Uganda, the oil and gas industry is pioneering the agenda of procuring local content. While the souring of local content is deemed a viable path in securing economic development across different sectors (Fred, Nduhura, & Agaba, 2018). In Uganda a mystery exists as interventions are put in place to enhance capacity for local firms to offer local content are not yielding the expected results. Just like any country in the world oil exploration triggered hope to Uganda a country that is ranked 21th among the poorest in the world. The nation’s oil resources are deemed significantly sufficient in elevating it to the among top 50 oil producers in the world and among the foremost African oil producers. However, for the nation to fully harness the benefits from their oil resources, local content is key. This is based on the general notion that the oil resources can add value to the country that is if it can only impact the local economy and develop the industrial based of a nation (Mwakali & Byaruhanga, 2013).

After the discoveries of oil barrels in various parts of Kenya, the government has tried to set up policies and local content strategies that will enable the communities to benefit from the exploration of these resources (Cindy, 2015). The Kenyan government has enacted several legislations in parliament to oversee the implementation of local content but not fruitful as such, the legislation requires the resources to benefits the local communities and the economy at large. The Kenyan Petroleum Act section (9) provides a comprehensive explanation of an obligation through the production-sharing contract (PSC) where an explorer is required to in cooperate the locals in the exploration activities such as providing
training and employment opportunities to unemployed Kenyans. PSC demands the contractor to use the products and services that are available in the country. However, the country is currently in the process of putting in place a comprehensive operating framework for the oil and gas exploration activities as evidence by the yet to be enacted bill on petroleum exploration development and production of 2017 and subsequent policies on the same (Sen, 2018). This act has however been enacted into laws.

Africa Oil Corporation is a Canadian oil and Gas Company with assets in Kenya and Ethiopia, and an equity interest in Africa Energy Corp. The company holds extensive exploration blocks in the East African Rift Basin system. Additionally, several new significant oil discoveries have been discovered in the Lokichar basin of Kenya in which the Company holds a 25% working interest along with the operator Tullow Oil plc. The Company is listed on the Texas Stock Exchange and on Nasdaq Stockholm (Owusu & Vaaland, 2016). Africa Oil Corporation is among the leading companies in Kenya involved in oil exploration activities. They are in a Joint Venture partnership with Tullow Oil plc (operator) around Lake Turkana in the East Africa Tertiary Rift trend in Northwestern part of Kenya.

Africa Oil Corporation was incorporated under the Company Act (British Columbia) on March 29, 1983 under the name "Canmex Minerals Corporation" with an authorized capital of 100,000,000 common shares. On July 2, 1999 the issued and outstanding shares of the Company were consolidated on a one-for-five basis and the authorized capital was increased, post-consolidation to 100,000,000 common shares. On August 20, 2007 the Company changed its name to Africa Oil Corp. On June 19, 2009 the shareholders of Africa Oil Corp., passed a special resolution increasing the Company's authorized share capital to an unlimited number of common shares (Owusu & Vaaland, 2016).

1.2 Statement of the Problem

Recent discoveries of oil, gas and valuable minerals in Kenya have put a sharp focus on the potential of the extractive sector to contribute to the country’s economic development. For the country to realize the benefits of its natural resource endowments, national policies, laws and regulations are needed that secure the necessary foreign and local investment, maximize the economic and social benefits to citizens while minimizing, and provide for
remediation of the negative impacts that accrue from resource extraction (Hain & Jurowetzki, 2018).

The need for a structured dialogue on local content in Kenya has been incentivized by the discovery of oil and other commercially viable minerals, a key focus being to promote in country value addition through four main pillars: local employment opportunities, in country spending and procurement of local goods and services, technology and skills transfer, and local participation through equity and management (Ibeh, Uduma, & Madichie, 2018). Spurred by periodic unrest and complaints from the locals, there has been a lot of talk of implementing effective and efficient local content policies in Kenya, however, to date, Kenyan government has not implemented a productive local content policy. The proposed energy bill drafted in 2013 saw the local, national and country government share the resources proportionately (Murugi, 2014).

Despite all these efforts, the government has not been in a position to implement the local policies fully for the effective development of local content implementation. Therefore, there has been speculations that lack of stakeholder’s support, individual interest, poor institutional, social and local infrastructure are some of the contributing factors of weak local content policy implementation (Cindy, 2015).

Africa Oil Corporation’s activities are located in the remote and arid northern areas of the country which are sparsely populated with pastoralist communities. In these areas, there is limited infrastructure, a strong reliance on emergency food rations, poor access to education and insufficient health services (Hain & Jurowetzki, 2018). These conditions result in low literacy, poor health, and high levels of poverty. A growing oil and gas sector presents an exciting opportunity for Kenya to greatly benefit through effective resource management, job creation and business growth. However, the resource sector in Kenya is still in its early stages and there is an absence of relevant education and training programs focused on the oil and gas sector, resulting in a gap between locally available skills and capacities and the anticipated needs in the labor market. Within this context, Africa Oil's community development activities are focused on improving community health and infrastructure, education and skills development, increasing access to energy and supporting sustainable livelihoods and economic development.
1.3 General Objective
The general objective of this study was to establish the determinants of local content implementation in upstream oil and gas in Kenya with a case of Africa Oil Corporation.

1.4 Specific Objectives
1.4.1 To determine the effect of local infrastructure on implementation of local content in Africa Oil Corporation.

1.4.2 To determine the effect of local capabilities on implementation of local content within Africa Oil Corporation.

1.4.3 To determine the effect of local policies on implementation of local content in Africa Oil Corporation.

1.5 Significance of the Study
1.5.1 Africa Oil Corporation
Africa Oil Corporation will benefit from the findings of the study as the study highlights the effect of local content on their implementation of oil and gas project in Kenya. The company gained additional knowledge on the necessary local infrastructure, capabilities and local policies that are required for implementation of oil and gas exploration projects.

1.5.2 Energy Sector
The energy sector which is made of both international and local firms will gain knowledge on various determinants of local content that are necessary for successful implementation of oil and gas exploration in Africa. The knowledge could be used by the players in this sector to inform their decision making process in regards to oil exploration.

1.5.3 Policy Makers
Policy makers regulating the energy sector in Kenya benefitted from the findings of this study by acknowledging various determinants of local content that are necessary for successful implementation of oil and gas exploration, development and production. The policy makers could use the findings of the study in formulating necessary policies that are in line with local content for successful implementation of oil and gas exploration.
1.5.4 Researchers, Scholars and Academicians
The world of academia will benefit from the findings and recommendations of this study as it will add to the body of existing knowledge on local content development in oil and gas exploration. The study will be a source of reference material for future researchers on related topics. It will also help other academicians who may undertake and in-depth discussion on the same topic in their studies. Other researchers will also benefit from the findings of this study since it will provide additional knowledge to the already existing literature on oil and gas exploration and production in Africa. The findings and gaps of this study will also act as ground for further research.

1.6 Scope of the Study
The study focused on the determinants of local content development on successful implementation of oil and gas exploration and production within Africa Oil Corporation. The study examined the extent to which the company had developed or exploited its local content policy or framework and other determinants in its implementation of exploration and production of oil and gas in Kenya. The study targeted the employees of Africa Oil Corporation and relied on them for primary data collection. Data was collected for a period of one month that is from June 2019 to July 2019. The study was limited to Africa Oil Corporation. This was mainly due to the time factor and the limited resources available to the researcher. There was also the challenge in that oil and gas exploration is relatively a new activity in Kenya. This study had a challenge with obtaining a high response rate from the respondents. This study mitigated this challenge by using a drop and pick method which gave enough time to the respondents and making follow up through phone calls and mails reminding them to fill the questionnaires.

1.7 Definitions of Terms
1.7.1 Africa Oil Corporation
Africa Oil Corporation is a Canadian oil and gas company with assets in Kenya and Ethiopia as well as Puntland (Somalia) through its equity interest in Horn Petroleum Corporation (McGrath & O’Toole, 2012).

1.7.2 Extractive Sector
This is any processes that involve the extraction of raw materials from the earth to be used by consumers. The extractive sector consists of any operations that remove metals, mineral
and aggregates from the earth. Examples of extractive processes include oil and gas extraction, mining, dredging and quarrying (World Bank, 2018).

1.7.3 Local Capabilities
Local capabilities is the expression or the articulation of the capacity, materials and expertise an organization needs in order to perform core functions. Oil and gas industry architects use local capabilities to illustrate the over-arching needs of the local in order to better strategize their solutions that meet those local needs in order to penetrate on the local serenity (Rouse, 2016).

1.7.4 Local Content
Local content refers to the added value brought to the Kenyan economy from petroleum related activities through systematic development of national capacity and capabilities and investment in developing and procuring locally available work force, services and supplies, for the sharing of accruing benefits (Kenya National Assembly Bills, 2017).

1.7.5 Gas
Gas means methane, ethane, propane, butane or hydrocarbons which may consist of one or more of any of those gases, either in the form of gas or liquid (Kenya National Assembly Bills, 2017).

1.7.6 Local Infrastructure
According to Salimu (2016), local infrastructure refers to the development and maintaining of key infrastructure for the communities and to provide and maintain infrastructure such as local roads, bridges, footpaths, water and sewerage (in some states), drainage, waste disposal and public buildings (Salimu, 2016).

1.8 Chapter Summary
The chapter presented the background of the study by highlighting the overview on local content and successful implementation of oil and gas exploration, followed by statement of the problem, the general objective of the study has also been stated. The chapter presented specific objectives that guided the study, significance of the study has also been presented highlighting various stakeholders that will benefit from the study and how they are likely to benefit. Definitions of key terms used in the study have also been presented. Chapter two
provides the literature review based on specific objectives. Chapter three provides the research methodology used in carrying out the study. Chapter four of this study presents results and findings gathered from the respondents. Chapter five offers the discussion of the findings, conclusions and recommendations for practice.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

The chapter presents the literature review based on the specific objectives guiding the study. The first section presents the first specific objective which is to determine the required local infrastructure for successful implementation of oil and gas exploration, followed by determining the local capabilities for successful implementation of oil and gas exploration and determining the effect of local policies on successful implementation of oil and gas exploration.

2.2 Local Infrastructure and Implementation of Local Content

Bond (2014), defines infrastructure as the enabling physical and organization structure for the operation of a society or enterprise. It is the enabling structure that is required to put up an effective and efficient society and its enterprise. According to Mwakali and Byaruhanga the discovery of oil in the most marginalized county in the republic of Kenya, brought with it the numerous blessing associated with the development of the requisite infrastructure that is required for the successful implementation of exploration efforts. There was the much need of opening up the rural and remote areas for access in a bid to ease the exportation of the precious commodity. Massive amount of funds were required to be invested as the area received little or no developmental support at all.

The availability of certain conditions such as information technology, local company’s needs, standards, social, educational in the local petroleum industry is the primary concern of local infrastructure factor (Ayentimi, 2016). Because providing and maintaining the necessary infrastructure would add to higher level of social welfare, it is essential for local supply industry to be more competitive. IT infrastructure is definitely an important variable, which has a substantial impact on local content development. It is necessary for information dissemination, which is one of important policy principles, to foster local content in the oil industry (Ban & Hadikusumo, 2017).

The collaboration between the government of the host country and the major players in the petroleum activities ought to be focused on how to involve domestically-based companies with local labor (Ayentimi, 2016). Attention must be on how to facilitate their participation in the domestic petroleum activities without compromising quality, health, safety and
environmental standards. Public utilities like roads, railways and air transport, telecommunications, electricity and water supply as local development infrastructure can create an environment, which enables for local development and productivity (Arruda, 2014). The standard of this infrastructure will influence profitability considerations for investors. Social infrastructure is associated with social cohesion between different social groups, which reduces the chances of social disorder. A stable environment attracts foreign investments and contributions to technology transfer (Amponsah-Tawiah, 2015).

Cindy (2015) suggests that the government in conjunction with the local authorities and international bodies such as International Monetary Fund (IMF) and World Bank and other partners support and partner with governments set out to develop a grand plan towards opening up the rural areas for more exploration of oil and gas. Millions of dollars have been invested in the areas with the potential of producing the oil and gas and much can be reported as a success story in the industry (Arruda, 2014). There have been ripple effects to the investment in the local infrastructure since with the development of the areas has come with the uplifting of the communities that were once marginalized, development of new economic activities in these areas and more access to government social programs.

Johannes, Zulu and Kalipeni (2014) argues that the exploration of oil and gas has to comewith the requisite laws that govern this operation. They further indicate that in Kenya, the exploration of oil and gas dates back to the pre-colonial era. The drier and isolated areas of the colonial republic were subjected to this exploration with the hope of finding the precious commodity. The operations were mostly governed by the laws of the colony. With the advent of independence, there had to be a better draft of legislation that governs the exploration activities. The petroleum exploration and production act came into effect in 1984, and further revised in 1986 (Agade, 2015). The exploration was majorly in vain until the recent years in 2010 when there was a major discovery that revived the hopes and the investments into the sector.

Local and international demand for oil and gas has been growing at a steady pace. Not at any point in history has the demand for the commodity been on the rise like the current decade (McGrath & O'Toole, 2012). To achieve a steady growth in the economy, governments need to look at the availability and supply of the product in their respective countries. There has to be programs and policies to support the oil and gas sector (Connolly,
A slump in the sector can result in a retardation of the economy of the respective countries, an action with serious political and social consequences.

Cindy (2015) highlights that Kenya has taken drastic step towards investments in the oil and gas sector. The ministry of energy, through the partnership with various stake holders has taken to develop a pipeline with a huge capacity to transport this commodity to the refinery in Mombasa. There have been efforts towards upgrading of the refinery at Changamwe in a bid to boost capacity for refining the product. Fred, Nduhura and Agaba (2018) further state that in the history of the republic the plan for construction of a heated pipeline is underway. Owing to the sticky nature of the crude from Kenya, a heated pipeline from the hinter Turkana area to the port in Lamu to ease the exportation of the product. The pipeline is expected to boost the capacity for export of the important commodity into the international market. The tasting phase of the exportation has already begun in earnest with the commodity being trucked to the Kipevu Oil terminus for export. Contracts to ferry the crude by road have already been taken up with the weekly capacity of export being improved gradually.

To have a successful oil and gas exploration exercise, there is need for the development of capacity to take care of the rising needs of the market and also to conform to the international standards (Pongsiri, 2014). There is need to build up capacity for the future to look into the needs of exploration, development of the market and exportation. Kenya, through partnership with other oil producing countries has taken to develop capacity through consultative forums with the companies that are experienced in oil and gas exploration and exportation. Tullow oil has been of significant aid to Kenya as it extends its experience in the handling of oil and gas exploration and exportation (Connolly, 2015). Freslon and Cooney (2018) further highlight that for successful oil and gas exploration, there is the need to invest in the knowledge required to successfully implement on the requirements of the industry. There have been numerous scholarship grants to the local communities in a bid to boost the capacity and knowledge in the country for future energy demands, understanding of the international oil and gas markets, and handling of the oil and gas exploration. There has also been an effort towards the development of curriculum that is focused more on the development of oil and gas exploration, marketing and exportation (Johannes, Zulu, & Kalipeni, 2014).
2.2.1 Logistics Infrastructure
According to Ablo (2015), when thinking oil and gas exploration, safety and efficiency always come first. The aspect of safety cannot be undermined or ignored. To protect lives and investments, there is requirement that the company undertaking the oil exploration invest in better safety lessons for their teams. Safety is paramount and there has to be constant drills in regards to safety in order to keep the team always prepared for any eventuality and possess the accurate knowledge of how to deal with any eventuality. How effectively the commodity gets to the market is a matter that has to be taken with concern. The oil and gas sector relies on the volumes that are produced (Amponsah-Tawiah, 2015). Exploration is always an expensive exercise and the volumes really matter for the exercise to make a return on investment. The issue of safety cannot be ignored since the commodity in question is of a high volatility nature and the support infrastructure for the exploration is always expensive (Mwakali & Byaruhanga, 2013).

In fact providing the logistical solution for oil and gas exploration is not always an easy task. The projects are always massive and complex in nature. The location for projects are usually in the remote and far regions that not easily accessible (Sergi & Berezin, 2015). For example the offshore oil and gas exploration requires technical knowledge for access to these areas as there are always located in the deep sea. Even in the most established oil producing countries, the oil fields are located far away from the human population and there is often little or no infrastructure to access to the areas. The massive equipment always makes the access to these areas a challenge. It is mostly a well-coordinated project that require that every stakeholder avail what is required and when is required (Bond, 2014). It is an exercise that always requires careful planning and execution. It always requires creativity in the side of the companies that are providing the logistics since some goods that are required for the oil and gas exploration are difficult to be transported through normal channels such as public roads in that they may bring about inconveniences in the general public order (Ablo, 2015).

2.2.2 Local Capacity Development
There has to be initiatives towards local capacity development of oil and gas exploration (Seljom & Rosenberg, 2011). The capabilities include the capacity to actually provide the finances to invest in the activity of exploration and development of oil, the level of knowledge that is required to build on the oil and gas exploration, legislative capacity for
the support of oil and gas exploration, and the agreement framework by the local community in the regards to their rights on the activities of oil and gas exploration and the sharing of royalties from the natural resource from their areas (Arruda, 2014).

According to Ibrahim (2008), Oil and gas exploration is often a very expensive exercise and requires massive amounts of investments. It is never obvious that the oil and gas exploration exercise will result to good outcome as most are cases whereby the exploration exercise does not translate to discovery of commercially viable oil quantities. Knowledge is key in the oil exploration activities. Having the right level of knowledge helps in having successful missions in the activity of oil and gas exploration (Arruda, 2014). Building on the capacity for knowledge is also paramount as a future investment into the field of oil and gas exploration.

The legislative framework is supportive of the local oil and gas operations. The legislative framework is progressive and enabling to the oil and gas industry (Seljom & Rosenberg, 2011). The laws that are laid down for the support of the activities have actually set down a framework for the relationship between the local community and the exploring companies. Without the required laws and legislative framework, there would be massive conflicts with the local communities (Bond, 2014). The legislative framework also lays down the distribution or sharing of the revenues between the local communities, the government and the exploring companies. As witnessed in other countries where there are always conflicts between the local communities and the exploring companies a good case point being Nigeria, there has to be a liaison and dialogue between stakeholders in order to avert any form of crisis (Ayentimi, 2016).

2.3 Local Capabilities and the Implementation of Local Content
Effiong (2010) argues that the first level of capability in the oil and gas exploring firms is the operational capability by the company. How a company can fully utilize its resources for the god and outcome of the industry is a critical factor in determining its success rate by the company. Operational capabilities are not only tied to the amount of monetary resources by the firms but also the level of knowledge by the firm. The right level of knowledge and money put together produces fantastic results for the successful implementation of oil and gas exploration (Ihua & Ajayi, 2011). A firm’s level of innovation also adds to the advantage of its capabilities towards dealing with successful oil
and gas exploration. According to Amponsah-Tawiah (2015), capabilities can also be borrowed from one firm to another. The sharing of knowledge, inbound or outbound outsourcing, adds to the success of capabilities by the firm. Knowledge from innovation and any other knowledge are necessary in building the operational capabilities by firms. The oil and gas industry is also a very competitive industry. The firm in the exploration activities has to possess a dynamic capability to meet the demands of the industry (Arruda, 2014). The dynamic capabilities are pegged on the resource based view (RBV) framework. The resource based view enhances the internal ability of the company by consolidating resources and investing in the activities by the firm. The company can reinvent with adequate resources then making it competitive in the industry (Baptiste & Nordenstam, 2010).

The capacity for successful implementation of the oil and gas exploration continues to be built over time (Bond, 2014). It takes time to acquire experience in the field of oil and gas exploration and since Kenya is relatively a new entrant in the field of oil and gas exploration, time will be the biggest judge in the country trying to develop capability in the oil and gas sector (Cindy, 2015). There has to be wide consultations with the local communities as to the expectation of the oil and gas sector, outlining the consequences of such activities. Currently these have been the development of capacity to actually build on the local capabilities in the sector. Grants and aid have been extended to build on the local capacity and capability for the grand investment for the project (Murugi, 2014).

There has been the development of access ways to the exploration blogs and the exploration rights have been auctioned at fair value in order to allow for healthy competition in the sector (Arruda, 2014). The development of policy framework by governments has also aided in the development of the local capabilities for the successful implementation of the oil and gas sector (Ban & Hadikusumo, 2017). Localized policies that are tailored to the exact needs of the population have been developed in a bid to aid in building of capacity for oil and gas exploration. Oil and gas exploration has adverse effects to the environment. The activities from the exploration are a major pollutant to the environment. There has to be a framework on the management of the pollution such as a design of the local policies for the development of the capacities by the firms (Connolly, 2015). There is the need to highlight and educate the local communities on the consequences to expect on the activity of oil explorations.
2.3.1 Development and Adoption of Technology
The success of any firm is pegged on how effectively it can utilize technology (Chi, Ma, & Ning, 2012). Technology creates efficiencies for the firm. An efficient firm in the production of goods and services has a competitive advantage over other firms in the same industry. Efficiency aids in creating the proper utilization of resources for the better outcome by the firm (Ablo, 2015). An investment in the technological capacity by the firm may seem an expensive adventure by the firm. It is however critical to realize that an investment in technology is actually a venture that pays off in the long run and saves so much for the company. Technology keeps on mutating at a very fast rate and therefore keeping up with the trends may seem difficult for the firm (Fred, Nduhura, & Agaba, 2018). A technology that may be fashionable in this decade in the fields of oil and gas exploration may seem irrelevant in the next decade. This is because of the changing trends and needs of the industry and the market itself.

According to Chi, Ma and Ning (2012), Technology is developed for the purpose of enhancing efficiency. The oil and gas exploration has not been left behind in the development of efficient technologies since the demand for oil and gas keep on changing and there is need for discovering many other oil fields as the current ones are at the verge of depletion. Smart drilling has been seen by industry expert as the future to oil and gas exploration (Ayentimi, 2016). Firms should harness a more harmonized approach to exploration of the oil blocks. Smart drilling encompasses the use of intelligence and information to conduct the drilling. Information such as the geological data is key in making investment decisions by the firm in a bid to actually save on the inconveniences and the losses that may occur when information is not readily made for use. Geological surveys have made this activity easy as it is easier to make decisions on geological surveys more accurately (Mwakali & Byaruhanga, 2013).

Incorporation of block chain into the oil and gas exploration has been seen as a huge success towards establishing efficiencies in the sector (Eldomiaty, Lofty, & Rashwan, 2016). There is plenty of data that is flying around in regards to oil and gas exploration. There is the need to make this data accurate and efficient for it to be of importance to the company. There is also the need to have authenticated data by the company in a bid to reduce on the instances of error that may be associated with it (Effiong, 2010). With the block chain technology, it is easy to access data in real time and reduce on the instances of error. Block chain
technology creates transparency in the oil and gas sector easing the burden that is associated with so much data that sometimes may be meaningless to firms, into useful outfits with a competitive advantage by the firm (Ban & Hadikusumo, 2017).

There is need to connect all the software system of the oil and gas exploring firms. This will aid towards creating better efficiencies in the field of exploration as decisions will be made in a much easier form (Bond, 2014). The adoption of connecting technology by oil and gas exploring firms will help companies have a deeper look into their activities. Things such as scheduled maintenance, equipment upgrade will be easy with the adoption of connecting technologies. Technologies such uses of global positioning systems (GPS) and three dimensional (3D) technologies in explorations have helped ease on the cost of exploration. These technologies can easily identify on locations of oil reserves and ease on the process of prospecting for oil and gas (Ban & Hadikusumo, 2017).

Other sensor technologies have also been made and it is easy to local the seismic activities by geologies and thus pinpoint on the exact location for oil fields (Chi, Ma, & Ning, 2012). Before the advent of this technology, crude prospecting actually took a more crude approach. Prospecting for crude actually looked like guess work since it was a trial and error endeavor. Rigs could be dug out randomly in the effort f prospecting for oil and the probability for the outcome was low. Adoption of the smart technologies has gone a long way in identifying new oil rigs and saving much time and effort (Ablo, 2015).

2.3.2 Strategic Planning
According to Linn (2008) strategy is an outline on the execution of a plan. A strategy aims to achieve a general aim for a plan. It is an outlay that when carefully followed gives out the best of results, that is the outcomes that were intended. Strategy involves the activities from exploration to the end activity of selling to consumer in the world market. These activities are a chain in that they are connected and one activity is dependent on the other activity. Al-Turki (2011) further adds that strategic planning actually involves careful planning and understanding of both the needs and trends of the industry, the expectations by the shareholders of the exploring firms, the expectations of the needs of the community and the impact on the community from the activities of oil exploration and also the expectation of the government.
The distribution chain actually right from exploration has to be carefully planned (Elbanna, 2010). The demand chain for the oil and gas is faced with a myriad of challenges such as price fluctuation and heavy government taxation. Inkpen and Ramaswamy (2017) argues that the demand for oil is on the rise and the tweaking with the supply of the commodity actually goes a long way towards altering of the prices of the product. With the massive amounts of resources under investments, price fluctuation of resources actually affects the internal rate of return by the company. Baptiste and Nordenstam (2010) argue that the activities of oil exploration can be life changing in that the billions of dollars that go into these activities actually benefit the local population. The activities create a parallel economy in that local businesses actually take advantage in supplying the exploring companies with materials, aside creating job and other value to the local community.

2.3.3 Environmentally Conscious Approach to Oil and Gas Exploration

The rise of environmentalism has brought with it tough action and policies that curb environmental pollution (Baptiste & Nordenstam, 2010). The legislations towards promoting a greener world through reduction of pollution has brought with it more cost especially to the oil and gas exploration. More punitive measures are being administered to the polluters of the earth with some penalties causing a disruption of activities in the oil and gas sector (Ayentimi, 2016). For example to adhere to the maritime requirements for offshore oil and gas exploration, firms have had to bear the cost of environmental damage associated with off shore drilling, an action that can cost millions of dollars.

Decommissioning of oil rigs is also another expensive exercise for companies. Usually the equipment is huge and expansive and a simple act of decommissioning an oil rig can cost much (Arruda, 2014). Globally the cost of decommissioning the equipment is $15 billion dollars annually and the cost has been rising in regards to the tough legislations by governments around the world. However, the transition to the world running on renewable energy is still far-fetched as oil and gas are expected to take the lead towards economic development. Tough rules are only applied to reduce on the level of emission by companies on oil exploration (Amponsah-Tawiah, 2015). A recent oil spill into the ocean by British Oil Corporation attracted millions of dollars in losses and a stringent fine by the company. This is an indication by the government on the efforts towards the commitment to the clean environment policy.
According to Vecchiato (2015), Oil refineries have been forced to upgrade to better equipment in a bid to boost on efficiencies and better capacities and reduce on emissions. Upgrade to better equipment costs millions of dollars to oil exploration firms and there is a need towards encouraging these firms to actually upgrade in order to remain competitive, relevant and profitable. According to Ayentimi (2016) there has been collaboration between the various stakeholders including government, not for profit agencies and institution of higher learning towards development of a computerized model for the setting of standards for environment protection. Various researches have been funded in an effort towards setting the standards for the environmental protection. These efforts have mainly been seen as punitive in that the adoption of some standards has almost pushed other players out of business, or other players have permanently shifted their operations to areas that are slow to adopt these legislations (Mwakali & Byaruhanga, 2013).

According to Mwakali and Byaruhanga (2013) when the sector is neglected, the sector can pollute the environment at record pace and the legislations are towards sanctioning of behaviors multinational oil explorers. In a research conducted by World Bank on the public views towards regulation of the oil and gas exploration industry, it was found that the public actually favored the sanctioning of the oil and gas industry especially in areas that are delicate in the eco systems. These areas included the coastal wetlands and oil exploration in the forest land. These areas were defined as delicate in the eco system since it took a long time for them to regenerate when interfered with. The sanctioning of activities for exploration in these areas was important since when an oil exploration firm sets out to conduct exploration in these fields leave a trail of disaster (Baptiste & Nordenstam, 2010).

### 2.4 Local Policies and Implementation of Local Content

Local policies are concentrated in a range of economic sectors including oil and gas industry (Shortland, 2015). These policies include public and industrial policies, which are concerned with sustainable economic development. The public inputs to any production process tend to require a number of coordinated policy reactions, so they are often more extensive than assumed. Even highly developed economies rely on active policies to increase the local content generated by local manufacturing and services companies (Effiong, 2010). These policies will general a more forecasted macroeconomic environment, increase the reliability of institutions and the legal system, provide incentives to enhance sound local practices, generate a more enabling infrastructure for local
development, and enhance social structures, which would contribute to inclusion and participation (Amponsah-Tawiah, 2015).

Ibrahim (2008), argued that a local content policy must be outlined with cautious considerations to shun damaging the opportunities for local development outside the oil sector. If a policy is to be successful in augmenting local content in the oil and gas activities and subsequently enhance industrial development, decision makers at all levels are required to share the objective of making contribution to national wealth through industrial growths (Enabulele, Zahraa, & Ngwu, 2016). Public policies can execute different functions such as establishing company registries, appointing norms, enforcing contracts, laws and strategies, and providing infrastructure aligned with planned local content objectives. It is necessary for the government to increase local skills, local know-how, technology, capital market development, wealth capture, and wealth distribution to create the conditions for domestic companies to emerge (Ban & Hadikusumo, 2017).

Government policies have to lead to cooperation between government and firms in the decisions regarding local purchasing and subsidies. This cooperation is likely to propel the economy into a better condition of welfare (Fred, Nduhura, & Agaba, 2018). In order to monitor the process, clear indications given by the policy as to how growth and improvement of local content will be accounted and communicated to each company (Baptiste & Nordenstam, 2010). Industrial policy constitutes a vital part of government policies. Industrial policy has to primarily focus on the efforts, which could facilitate the participation of locally owned firms in the domestic petroleum activities, competitively. UNCTAD recommends in its 2001 report that promoting industrial linkages among domestic resources and international investors in undertaking local activities in the country will enhance industrial development (Ablo, 2015).

At the core of successful oil and gas exploration is the quality of policies surrounding these activities (Sumbal & Barendrecht, 2017). A robust policy framework is important in dealing with issues that may arise out of conflict of interest. There are many interest groups in the oil and gas industries. The oil and gas industry value chain is designed to create value from the least of them all in the value chain, the local community to the largest stake holder in the oil and gas exploration activity that is the people through representations by their government (Al-Turki, 2011). One of the issues that is articulated in the oil and gaz
exploration and is subject to proper legislative framework is land (Alciatore & Dee, 2006). Land as a factor of production for many communities around the world, is an emotive issue. It is an issue that has caused contention in the many communities and the conflicts brought about by land has led to fatalities.

There has to be a way of compensating for land in the event that a particular block is chosen for exploration. The tenure for land has to be diligently identified to avoid any instances of conflicts (Ayentimi, 2016). The local community has to be involved in the issues leading up to acquisition for land by firms wishing to conduct the activities for exploration. Compensation for the mandatory acquisition for land for exploration activities has been hit by controversies especially in Africa (Alciatore & Dee, 2006). There have been conflicts with companies over land that was acquired for exploration with some instances leading to suspension of exploration activities in some parts. It is either reported that land was acquired at below fair market value or the beneficiaries for acquisition were not the intended ones.

Local policies need to be progressive in their part, defining the type of ownership granted to the company in exploration. There is thus need to define the type of ownership such that at the end of the exploration for oil and gas, land is reverted back to the owners (Kazzazi & Nouri, 2012). There is need for the development of a clear policy framework especially in the area of revenue stream sharing. Oil exploration is a difficult and expensive endeavor. There has to be a way in which the company compensates itself for the investments, the amount to be taken by the local community in efforts to finance such important infrastructure such as schools, roads and hospitals and what goes to the national government (Eldomiaty, Lofty, & Rashwan, 2016). Policies for the protection of environment have to also be enacted. Countries need to be aware on the impact and the scale of destruction in which these companies and oil exploration activities cause to the environment. A level of preparedness on the impact of these companies to the environment is actually important. A deep level of research and knowledge is important in the development of legislative frame work that is modern and very progressive in an effort to regulate the oil and gas exploration (Amponsah-Tawiah, 2015).
2.4.1 Supporting Legislation in Oil and Gas Exploration
According to Arruda (2014) legislation has to be progressive for it to work. The reason for a progressive legislation is because the oil and gas sector keeps on changing at a rapid rate. The changing technologies and demands for the precious commodity, oil, are rapidly changing and there is need for an open ended legislation to govern on these needs. There has to be a wide consultation from across the globe in the event of drafting the legislation as failure to that has always resulted to conflict of interest (Ban & Hadikusumo, 2017). There are countries that are leaders in the oil and gas exploration industry and borrowing or adoption on their legislative frame work is essential. For example, the United States of America is a leader in the oil and gas exploration and owns a sizable portion of lands and seabed that are rich in crude. The country is a leader in enactment of the oil and gas legislation and has a rich history of enforcing the oil and gas laws (Sergi & Berezin, 2015).

A section of legislation should delve deep in the issues of environment since the environment is the greatest casualty in the oil and gas exploration activity (Zakaria, 2016). The need for a progressive legislation is for the reason of changing the legislation to suit on the needs and times. The progressive legislations find themselves at the core of oil and gas exploration since the requirement for the reduction of the emission of the greenhouse gases are expected to come from the oil and gas industry (Alciatore & Dee, 2006). The oil and gas industry contributes to the emission of greenhouse gases in a very unprecedented scale. It is one of the biggest emitters of carbon and contributes thirty percent cases of global warming. According to Ayentimi (2016), Papua New Guinea has a commendable legislation in operation governing the oil and gas exploration from the country. Papua New Guinea has been a major oil exporter since the 1990s and the adoption of the legislative frame works has over time worked to regulate the industry that is a top employer in the country and a revenue earner for the country. Although the exploration and development of the natural resource is at the hands of multinationals, the legislation lays down a working relationship between the multi nationals, the government and the local communities.

2.4.2 Availability of Information on Oil and Gas Activities
According to Ebrahimi, Genovese and Kumar (2018) availability of information concerning oil and gas activities is crucial in enhancing local policies that protect the interests of communities in which oil and gas is explored. A citizen or an organization is empowered when it has access to information. There has to be records in a public office in
regards to the activities of exploration and any other activities by oil firms. It should be easy to obtain information and in the shortest time possible. Information should be such that it is easily accessible when required (Arruda, 2014). Openness in the field of oil and gas exploration leads to one to acquire the information that is critical in decision making or any lobby or interest groups. Access to information should be affordable as prohibitive costs sanctions or bars one from access of information. In an event of a public participation on a consultative forum, information and its easy access will help the stakeholders participate in a more inclusive form (Rouse, 2016). The stake holders will be able to articulate their view and opinions in a more upright way. Information access ensures inclusivity of all the stake holders.

Information also helps interest groups and general public have knowledge on the operations of the oil and gas companies since their activities has a heavy impact on the environment and the financial well-being of the general public (Amponsah-Tawiah, 2015). Oil and natural gas are natural occurring resources and their proceeds should be shared with all the stake holders that is the exploring company, the community and the government. If for example, an interest group has access to information it will be easy for them to lobby for an action to be taken. Interest groups act as the watchdog for the interest of the public. In an event that the public is shortchanged by the oil and gas exploration activities, the interest group will be able to lobby for them in a court of law (Agade, 2015). Access to information will enable a transparent and equitable sharing of resources. In an environment that encourages secrecy, corruption will come in and that the general public will be shortchanges on their plans to have a share in their natural resource.

2.4.3 Conflict Resolution Framework

Bond (2014), highlights that oil and gas exploration is associated with conflict of interests between various parties of the society. Clearly there has to be conflict since the resources are expected to benefit every member of the society or every other stake holder in the chain. Oil and gas, being a vital resource for any development of an economy, is associated with conflicts since many community members of the local community will read intrusion and a breach in their social order by the companies exploring for oil. This is a good recipe for war and if conflict is not addressed quickly, it will lead to a full blown war (Owusu & Vaaland, 2016).
A relevant case point is Nigeria whereby the blessing for oil has served as a curse. There is perennial conflict in the areas that are being explored for oil and this threatens the national security and the stability of the nation (Effiong, 2010). There has to be mechanism to encourage a mutual conflict resolution to avoid the costly path associated with going to war. Oil should serve as a blessing and not a curse and it should be used for the development of a friendly economic environment driven by production in the oil and gas sector (Arruda, 2014). The institutions that are mandated to deal with conflict resolutions should be strengthened. Legislation should be such that it is impartial and serve justice in a deserving way.

According to Ebrahimi, Genovese and Kumar (2018), there is a process of litigation guided by the laid down laws as procedure. Aggrieved parties should try to conduct their disputes in a much formal way in that the law courts and guided down by the laws of the land. Although the process is so formal, requires one to have cash and takes time to serve justice, it is an option in an event that requires a resolution to be made or passed and it sets precedence for future rulings. The process of litigation is often open and fair and the outcome is always subject to appeal by law courts. The process of arbitration is also important in that just like litigation, there has to be an outcome to serve justice. The process of arbitration is based on an agreed model by both parties (Eldomiaty, Lofty, & Rashwan, 2016). It takes a much shorter time to come up with a conclusive outcome and it is in itself cheaper than litigation.

2.5 Chapter Summary
This chapter dealt with literature review on the basis of the research questions in the chapter and has focused on literature on local policies, local infrastructure and local capabilities and local operating environment with regards to oil and gas exploration, development and production in Kenya. The next chapter presents the research methodology.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methodology under the following headings: Research Design, population and sampling design, data collection methods, research procedures, and data analysis methods.

3.2 Research Design

According to McGrath and O’Toole (2012) research design is a procedure for collecting, analysing, and reporting research in quantitative and qualitative research. This study adopted a descriptive research design. Descriptive research design refers to research design that focuses on the accurate portrayal of the characteristics of persons, situations or groups (Rani, 2014). The researcher selected descriptive research design since it determines and reports the way things are, and it also attempts to describe such things as behavior, attitudes, values, and characteristics. Descriptive survey design of this study was used in integrating all the components of the study in carrying out the study. The study integrated both the independent variable which is the determinants of local content and implementation being the dependent variable.

3.3 Population and Sampling Design

3.3.1 Population

According to Amburgey (2010) population is a well-defined set of people, services, elements, and events, group of things or households that are being investigated. The study population in this research was drawn from the employees in Africa Oil Corporation who directly participate in the activities of oil exploration and production. The population of this study was 106 respondents consisting of the top level management, middle level management, lower level and the staff.
Table 3.1: Population Distribution

<table>
<thead>
<tr>
<th>Category</th>
<th>Population</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Management</td>
<td>5</td>
<td>4.7%</td>
</tr>
<tr>
<td>Middle Level Management</td>
<td>12</td>
<td>11.3%</td>
</tr>
<tr>
<td>Lower Level Management</td>
<td>19</td>
<td>18%</td>
</tr>
<tr>
<td>Subordinates</td>
<td>70</td>
<td>66%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>106</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Africa Oil Corporation (2019)

3.3.2 Sampling Design

3.3.2.1 Sampling Frame

A sampling frame is a list of population from which a sample is drawn (Croft, Italia, & Jacobs, 2016). It is the source material or device from which list of all elements within a population that can be sampled is drawn and may include individuals, households or institutions (McGrath & O'Toole, 2012). The sampling frame for this study included all the employees in the human resource master list of the Africa Oil Corp. members as at 31st July 2018.

3.3.2.2 Sampling Technique

Sampling technique is the process of choosing sub-sections of a target population to represent the entire population of the study with the aim of gathering information regarding the subject of interest (Nite & Singer, 2012). The study employed the stratified random sampling technique. This is because the population from which the sample was drawn did not constitute any homogeneous group, and hence stratified sampling technique was applied to obtain a representative sample. Under stratified sampling, the population was divided into several sub-populations or strata that are individually more homogeneous than the total population items chose from every stratum to establish a sample. The strata of the study composed of top managers, middle level managers, lower level managers and subordinates.

3.3.2.3 Sample Size

Cooper and Schindler (2014) define sample size as a smaller group or a subgroup that is obtained from the target population of the study to represent the entire target population.
being investigated. The sample size of this study was obtained using Yamene’s formula with a confidence level of 95%.

\[ n = \frac{N}{(1 + Ne^2)} \]

Where, \( n \) = sample size

\( N \) = Population of the study
\( e \) = marginal error that is 0.05

\[ n = \frac{106}{1 + 106 (0.05^2)} \]

\( n = 84 \)

Therefore, the sample size of this study was 84 respondents

<table>
<thead>
<tr>
<th>Category</th>
<th>Population</th>
<th>Sample</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Middle Level Management</td>
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<td>Lower Level Management</td>
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<td>18%</td>
</tr>
<tr>
<td>Subordinates</td>
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<td>56</td>
<td>66%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>106</strong></td>
<td><strong>84</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

3.4 Data Collection Methods

Cooper and Schindler (2014) define data collection as the precise, systematic gathering of information relevant to the research sub-problems, using methods such as interviews, participant observations, focus group discussion, narratives and case histories. This study employed the use of primary data that was collected by use of the questionnaire. Questionnaires was developed from the objectives of the study and it was administered to the Africa Oil Corp. This study used a questionnaire since it enabled the researcher to collect both qualitative and quantitative data from the respondents. The questionnaire also ensured a high response rate was obtained from the respondents. The questionnaire used a Likert Scale to enable the respondents to fill their responses to their degree of agreement. The questionnaire had various sections, the sections covered demographic information of the respondents involved in the study. Three sections had questions on the effect of local infrastructure on implementation of local content, followed by question on the effect of
local capabilities on local content implementation and the questions on the effect of local policies on the implementation of local content.

3.5 Research Procedures

According to Cooper and Schindler (2014) research procedure refers to a blueprint that consists of step by step on how the study should be carried out with the purpose of meeting the study objectives. For this particular study, after the completion of the proposal, approval for data collection was sought from the supervisor for data collection, a letter of introduction was drafted by the researcher to Africa Oil Corporation to ask for permission of carrying out the study from their premises. A pilot test was conducted using 8 respondents accounting for 10% of the sample size and did not participate in the actual study. Reliability analysis was conducted using Cronbach’s Alpha and the instrument revealed cronbach alapha score above 0.7 which is was accepted indicating that the instrument was reliable.

Upon completion of the pilot study, the researchers physically visited the offices of Africa Oil Corporation and administered the questionnaires to the respective respondents. A drop and pick method was used to give enough time for the respondents to fill the questionnaires. With the help of a research assistant the questionnaires were then picked for data analysis.

3.6 Data Analysis Methods

Data Analysis is the process of transforming collected data to make meaningful information out of them (Cooper & Schindler, 2014). Data collected from questionnaires were coded and keyed into a computer and analyzed using the Statistical Package for Social Sciences (SPSS version 24). Descriptive statistics including the means and standard deviations were used to analyze quantitative data and capture the characteristics of the variables under study. Inferential statistics were used to test the nature and magnitude of the hypothesized relationships. The findings obtained from the respondents were presented using tables and figures.

3.7 Chapter Summary

This chapter presented the research methodology that was used in carrying out the study. The chapter highlighted descriptive survey as the research design that was used to integrate various elements of the study, followed by population of 106 employees working at Africa Oil Corp, stratified sampling technique was deployed with a sample size of 84 employees.
A questionnaire was used for primary data collection, research procedures have also been highlighted in this chapter, data was analyzed through descriptive and inferential statistics and the findings presented using tables and figures.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction
Chapter four present the findings obtained from the study respondents. The chapter provides the demographic information of the respondents followed by the findings on local infrastructure and local content implementation, local capabilities and local content implementation and the findings on local policies and local content implementation.

4.2 Demographic Information
This section covers response rate and demographic details of the respondents and the variables include; gender, age, education and the number of years in the organization:

4.2.1 Response Rate
This study sought to determine the response rate obtained from the study respondents. Out of 84 questionnaires that administered to the respondents, only 59 of them were dully filled accounting for 71% response rate. The remaining 25 questionnaires accounted for the remaining 29%. Cooper and Schindler (2014), argue that a response rate of 70% and above is sufficient for data analysis. Therefore, the response rate of 71% was viable for carrying out data analysis for this particular study. The findings are presented in Table 4.1.

Table 4.1: Response Rate

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responded</td>
<td>59</td>
<td>71%</td>
</tr>
<tr>
<td>Non-Response</td>
<td>25</td>
<td>29%</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>100%</td>
</tr>
</tbody>
</table>

4.2.2 Respondents Gender
When the respondents were asked to indicate their gender, 68% of the respondents were male and 32% were female as shown in Figure 4.1. This implies that the organization had a diverse gender representation including both men and women.
4.2.3 Respondents Age

When the respondents were asked to indicate their age, 5% of the respondents aged between 18 and 25 years old, 19% aged between 26 and 33 years, 28% aged between 34 and 40 years, 37% aged between 41-47 years and 11% were above 48 years as shown in Figure 4.2. This implies that there was a diverse age groups represented in this study.

4.2.4 Number of Years in the Organization

The respondents were asked to indicate the number of years they had worked for the organization, 9% of the respondents had worked for a period of 8-10 years, 7% had worked for less than a year, 47% had worked for a period of 2-4 years, and 37% had worked for a
period of 5-7 years as shown in Figure 4.3. This means that majority of the respondents had sufficient information pertaining to the organization.

![Figure 4. 3: Number of Years in the Organization](image)

### 4.2.5 Education

When the respondent were asked to indicate their education level, 19% had a master’s degree, 64% had a bachelor’s degree, 10% had a diploma, and 7% had certificate level of education as presented in Figure 4.4. This implies that the respondents had the ability to read and interpret the information being sought in this study.

![Figure 4. 4: Education](image)

### 4.3 Local Infrastructure and Implementation of Local Content

This study sought to determine the effect of local infrastructure on implementation of local content at Africa Oil Corporation. The findings covering both descriptive and inferential statistics are presented as follows:
4.3.1 Descriptive Statistics for Local Infrastructure and Implementation of Local Content

On the basis of a Likert Scale, the respondents demonstrated the extent to which they agreed or disagreed in line with different aspects of local infrastructure and implementation of local content. The range on the five-point Likert scale ranges from 1 standing for strongly disagreed and 5 standing for strongly agree. The analysis of data was based on means and standard deviations to represent the range of response dispersion as in Table 4.2.

The findings in Table 4.2 revealed that the respondents agreed to the statement that local infrastructure is necessary for successful implementation of local content with a mean of 4.19 and SD = 0.880. The respondents agreed that Information technology infrastructure enhances successful implementation of local content with a mean of 4.32 and SD = 0.706. The respondents also agreed that Local infrastructure enhances investment opportunities in oil and gas, mean = 4.41 and SD = 0.495.

The findings of this study revealed the respondents agreed that Safety standards are essential for successful implementation of local content with a mean of 4.75 and SD = 0.439. The respondents of this study were in agreement that Logistics infrastructure enhances successful implementation of local content with a mean of 4.51 and SD = 0.504. The respondents agreed that Local capacity development enhances successful implementation of local content, with a mean of 4.53 and SD = 0.504.

Furthermore, the findings of this study revealed that the respondents agreed that Local capacity development is essential for funding operations of exploration of oil and gas with a mean of 4.53 and SD = 0.504. The respondents of the study show that majority of the respondents agreed that local capacity development enhances knowledge creation on exploration activities with a mean of 4.39 and SD = 0.492. The respondents also supported the statement that local capacity development is essential for legislative framework governing exploration activities with a mean of 4.56 and SD = 0.501. The respondents were also in agreement that local capacity development enhances the relationships with communities in which exploration takes place with a mean of 4.44 and SD = 0.501.
Table 4.2: Descriptive Statistics for Local Infrastructure and Implementation of Local Content

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local infrastructure is necessary for successful implementation of local content.</td>
<td>59</td>
<td>4.19</td>
<td>.880</td>
</tr>
<tr>
<td>Information technology infrastructure enhances successful implementation of local content.</td>
<td>59</td>
<td>4.32</td>
<td>.706</td>
</tr>
<tr>
<td>Local infrastructure enhances investment opportunities in oil and gas.</td>
<td>59</td>
<td>4.41</td>
<td>.495</td>
</tr>
<tr>
<td>Safety standards are essential for successful implementation of local content.</td>
<td>59</td>
<td>4.75</td>
<td>.439</td>
</tr>
<tr>
<td>Logistics infrastructure enhances successful implementation of local content.</td>
<td>59</td>
<td>4.51</td>
<td>.504</td>
</tr>
<tr>
<td>Local capacity development enhances successful implementation of local content.</td>
<td>59</td>
<td>4.53</td>
<td>.504</td>
</tr>
<tr>
<td>Local capacity development is essential for funding operations of exploration of oil and gas.</td>
<td>59</td>
<td>4.53</td>
<td>.504</td>
</tr>
<tr>
<td>Local capacity development enhances knowledge creation on exploration activities.</td>
<td>59</td>
<td>4.39</td>
<td>.492</td>
</tr>
<tr>
<td>Local capacity development is essential for legislative framework governing exploration activities.</td>
<td>59</td>
<td>4.56</td>
<td>.501</td>
</tr>
<tr>
<td>Local capacity development enhances the relationships with communities in which exploration takes place.</td>
<td>59</td>
<td>4.44</td>
<td>.501</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.3.2 Correlation Analysis between Local Infrastructure and Implementation of Local Content

Correlational analysis was conducted by the researcher to determine the relationship that exists between the independent variable local infrastructure and dependent variable local content implementation. The findings in Table 4.3 revealed that there exists a significant and positive relationship between local infrastructure and implementation of local content, \( r (0.753); p\text{-value} < 0.01 \).
Table 4. 3: Correlation Analysis between Local Infrastructure and Implementation of Local Content

<table>
<thead>
<tr>
<th>Variable</th>
<th>Local content implementation</th>
<th>Local Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local content implementation</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>59</td>
</tr>
<tr>
<td>Local Infrastructure</td>
<td>Pearson Correlation</td>
<td>.753**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>59</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

4.3.3 Regression Test for Local Infrastructure and Implementation of Local Content

A regression analysis was also carried out to establish the underlying relationship between the study variables both the independent and dependent variable, where in this case local infrastructure is the independent variable and local content implementation is the dependent variable.

The findings in Table 4.4 represents a regression model summary between local infrastructure and local content implementation. The findings revealed R squared value of (0.567), this implies that local infrastructure accounts for 56% variability in local content implementation while the remaining 43.3% variability is attributed to other factors outside the regression model.

Table 4. 4: Regression Test for Local Infrastructure and Implementation of Local Content

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.753a</td>
<td>.567</td>
<td>.560</td>
<td>.07932</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Local Infrastructure

4.3.4 ANOVA for Local Infrastructure and Implementation of Local Content

The Analysis of Variance presented in Table 4.5 shows F-statistic value = 74.766 and p-value of 0.00. This indicates that; F (1, 57) = 74.766, p = 0.000 (p < 0.05), this implies that the relationship between local infrastructure (independent variable) and local content
implementation (dependent variable) is statistically significant. The relationship between local infrastructure and local content implementation is significant because the p-value of 0.000 is less than 0.05 (p-value < 0.05).

Table 4.5: ANOVA for Local Infrastructure and Implementation of Local Content

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.470</td>
<td>1</td>
<td>.470</td>
<td>74.766</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>.359</td>
<td>57</td>
<td>.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.829</td>
<td>58</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Local Content Implementation
b. Predictors: (Constant), Local Infrastructure

4.3.5 Coefficients for Local Infrastructure and Implementation of Local Content

The findings in Table 4.6 shows a Beta Coefficient value for the variables under investigation as, constant ($\beta_0$) = 2.227 and beta for local infrastructure ($\beta_1$) = 0.503. The p-value for substitutes was recorded as 0.000 (P= 0.000, p < 0.01. The regression equation was computed as follows:

Implementation of Local Content (Y) = 2.227 + 0.503 Local Infrastructure

Therefore, the findings mean that for every unit change for local infrastructure there will be a 0.503 change in implementation of local content.

Table 4.6: Coefficients for Local Infrastructure and Implementation of Local Content

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>2.227</td>
<td>.260</td>
<td>8.577</td>
<td>.000</td>
</tr>
<tr>
<td>Local Infrastructure</td>
<td>.503</td>
<td>.058</td>
<td>.753</td>
<td>8.647</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Local Content

4.4 Local Capabilities and Implementation of Local Content Implementation

This study sought to determine the effect of local capabilities on implementation of local content, this being the second research objective guiding the study, it offers the findings on the effect of local capabilities on implementation of local content. The findings are
presented as follows with the descriptive statistics followed by inferential statistics of the research objective.

4.4.1 Descriptive Statistics for Local Capabilities and Implementation of Local Content Implementation

On the basis of a Likert-scale, the respondents indicated the extent to which they agreed or disagreed in line with different aspects of local capabilities and implementation of local content to which they agreed or disagreed. The range on the five point scale ranges from 1 which stands for strongly disagree and 5 which stands for strongly agree. The analysis of data was based on mean and standard deviation to represent the range of dispersion as shown in Table 4.7.

The descriptive statistics presented in Table 4.7 show that local capabilities have an effect on implementation of local content. The findings revealed that the respondents agreed that Local capabilities are essential for operational efficiency with a mean of 4.41 and SD = 0.495, the respondents of the study agreed that local capabilities enhance resources utilization in the organization with a mean of 4.66 and SD = 0.477. The respondents of this study also agreed that local capabilities enhance dynamic capability to meet the demands of the industry with a mean of 4.46 and SD = 0.502.

The respondents of this study also agreed that local capabilities enhances the adoption of technological methods of exploration with a mean of 4.58 and SD = 0.498. The respondents of this study also agreed that development of technology enhances efficiency in the company’s operations with a mean of 4.41 and SD = 0.722. The respondents of this study were in agreement that strategic planning enhances a successful implementation of local content with a mean of 4.59 and SD = 0.495.

Furthermore, the respondents of this study agreed that the respondents strategic planning is essential in the understanding of key trends in the industry through environmental scanning with a mean of 4.39 and SD = 0.492. The respondents of this study agreed that environmentally conscious approach to oil and gas exploration is essential for successful implementation of local content with a mean of 4.36 and SD = 0.737. The respondents of this study were also in agreement that environmentally conscious approach to oil and gas exploration...
exploration enhances efficiencies and better capacity to reduce emissions with a mean of 4.42 and SD = 0.498.

Table 4.7: Descriptive Statistics for Local Capabilities and Implementation of Local Content

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local capabilities are essential for operational efficiency</td>
<td>59</td>
<td>4.41</td>
<td>.495</td>
</tr>
<tr>
<td>Local capabilities enhance resources utilization in the organization.</td>
<td>59</td>
<td>4.66</td>
<td>.477</td>
</tr>
<tr>
<td>Local capabilities enhance dynamic capability to meet the demands of the industry.</td>
<td>59</td>
<td>4.46</td>
<td>.502</td>
</tr>
<tr>
<td>Local capabilities are essential for developing exploration technology.</td>
<td>59</td>
<td>4.56</td>
<td>.501</td>
</tr>
<tr>
<td>Local capabilities enhance the adoption of technological methods of exploration.</td>
<td>59</td>
<td>4.58</td>
<td>.498</td>
</tr>
<tr>
<td>Development of technology enhances efficiency in the company’s operations.</td>
<td>59</td>
<td>4.41</td>
<td>.722</td>
</tr>
<tr>
<td>Strategic planning enhances a successful implementation of local content.</td>
<td>59</td>
<td>4.59</td>
<td>.495</td>
</tr>
<tr>
<td>Strategic planning is essential in the understanding of key trends in the industry through environmental scanning.</td>
<td>59</td>
<td>4.39</td>
<td>.492</td>
</tr>
<tr>
<td>Environmentally conscious approach to oil and gas exploration is essential for successful implementation of local content.</td>
<td>59</td>
<td>4.36</td>
<td>.737</td>
</tr>
<tr>
<td>Environmentally conscious approach to oil and gas exploration enhances efficiencies and better capacity to reduce emissions.</td>
<td>59</td>
<td>4.42</td>
<td>.498</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.4.2 Correlation between Local Capabilities and Implementation of Local Content

Correlational analysis was conducted by the researcher to determine the relationship that exists between the independent variable local capabilities and dependent variable local content implementation. The findings in Table 4.8 revealed that there exists a significant and positive relationship between local capabilities and implementation of local content, r (0.329); p-value < 0.01
Table 4.8: Correlation between Local Capabilities and Implementation of Local Content

<table>
<thead>
<tr>
<th>Variable</th>
<th>Local Content Implementation</th>
<th>Local Capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Content Implementation</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>59</td>
</tr>
<tr>
<td>Local Capabilities</td>
<td>Pearson Correlation</td>
<td>.329*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.011</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>59</td>
</tr>
</tbody>
</table>

*. Correlation is significant at the 0.05 level (2-tailed).

4.4.3 Regression Analysis between Local Capabilities and Implementation of Local Content

A regression analysis was also carried out to establish the underlying relationship between the study variables both the independent and dependent variable, where in this case local capabilities is the independent variable and local content implementation is the dependent variable.

The findings in Table 4.9 represents a regression model summary between local capabilities and local content implementation. The findings revealed R squared value of (0.108), this implies that local capabilities accounts for 10.8% variability in local content implementation while the remaining 89.2% variability is attributed to other factors outside the regression model.

Table 4.9: Regression Analysis between Local Capabilities and Implementation of Local Content

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.329a</td>
<td>.108</td>
<td>.093</td>
<td>.11387</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Local Capabilities

4.4.4 Analysis between Local Capabilities and Local Content Implementation

The Analysis of Variance presented in Table 4.10 shows F-statistic value = 6.6932 and a p-value of 0.001. This indicates that; F (1, 57) = 6.932, p = 0.001 (p < 0.05), this implies that
the relationship between local capabilities (independent variable) and local content implementation (dependent variable) is statistically significant. The relationship between local capabilities and local content implementation is significant because the p-value of 0.001 is less than the satisfactory level of 0.05.

Table 4.10: Analysis between Local Capabilities and Local Content Implementation

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.090</td>
<td>1</td>
<td>.090</td>
<td>6.932</td>
<td>.001b</td>
</tr>
<tr>
<td>Residual</td>
<td>.739</td>
<td>57</td>
<td>.013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.829</td>
<td>58</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Local Content
b. Predictors: (Constant), Local Capabilities

4.4.5 Coefficients of Local Capabilities and Implementation of Local Content

The findings in Table 4.10 shows a Beta Coefficient value for the variables under investigation as, constant ($β₀$) = 3.596 and beta for local capabilities ($β₁$) = 0.195. The p-value for local capabilities as 0.001 (P= 0.000, p < 0.01. The regression equation was computed as follows:

Implementation of Local Content ($Y$) = 3.359 + 0.195 Local Capabilities

Therefore, the findings mean that for every unit change for local capabilities there will be a 0.195 change in implementation of local content.

Table 4.11: Coefficients of Local Capabilities and Implementation of Local Content

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>3.596</td>
<td>.332</td>
</tr>
<tr>
<td>Local Capabilities</td>
<td>.195</td>
<td>.074</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Local Content Implementation
4.5 Local Policies and Implementation of Local Content

This study sought to determine the local policies on implementation of local content, this being the third research objective guiding the study. It provides the findings on the effect of local policies on implementation of local content. The findings are presented as follows with the descriptive statistics followed by inferential statistics of the research objective.

4.5.1 Descriptive Statistics for Local Policies and Implementation of Local Content

On the basis of a Likert-scale, the respondents indicated the extent to which they agreed or disagreed in line with different aspects of local policies and implementation of local content to which they agreed or disagreed. The range on the five point scale ranges from 1 which stands for strongly disagree and 5 which stands for strongly agree. The analysis of data was based on mean and standard deviation to represent the range of dispersion as shown in Table 4.12.

The findings of the study revealed that the respondents were in agreement that local policies influence successful implementation of local content with a mean of 4.61 and SD = 0.492. The findings show that the respondents agreed that local policies enhances development of local infrastructure necessary for implementation of local content with a mean of 4.36 and SD = 0.713. The respondents of this study were also in support that local policies enhances cooperation between the government and the organization with a mean of 4.42 and SD = 0.747. The findings revealed that the respondents agreed that local policies are essential for conflict resolution between the communities in which the company operates and the company itself with a mean of 4.58 and SD = 0.498.

The findings of the study revealed that the respondents agreed that having supporting legislation in oil and gas exploration is significant to the implementation of local content with a mean of 4.49 and SD = 0.504. The respondents were also in agreement that Supporting legislation enhances working relationship between stakeholders for a successful implementation of local content with a mean of 4.39 and SD = 0.929 The respondents of this study agreed that conflict resolution framework enhances accountability in implementing local content with a mean of 4.51 and SD = 0.504.

The respondents involved in this study further agreed that Conflict resolution framework formulates standard operating procedures for necessary implementation of local content
with a mean of 4.39 and SD = 0.492. The respondents were also in support that Local policies enhance availability of information on oil and gas activities with a mean of 4.25 and SD = 0.902.

**Table 4. 12: Descriptive Statistics for Local Policies and Implementation of Local Content**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local policies influence successful implementation of local content.</td>
<td>59</td>
<td>4.61</td>
<td>.492</td>
</tr>
<tr>
<td>Local policies enhances development of local infrastructure necessary for implementation of local content.</td>
<td>59</td>
<td>4.36</td>
<td>.713</td>
</tr>
<tr>
<td>Local policies enhances cooperation between the government and the organization.</td>
<td>59</td>
<td>4.42</td>
<td>.747</td>
</tr>
<tr>
<td>Local policies are essential for conflict resolution between the communities in which the company operates and the company itself.</td>
<td>59</td>
<td>4.58</td>
<td>.498</td>
</tr>
<tr>
<td>Having supporting legislation in oil and gas exploration is significant to the implementation of local content.</td>
<td>59</td>
<td>4.49</td>
<td>.504</td>
</tr>
<tr>
<td>Supporting legislation enhances working relationship between stakeholders for a successful implementation of local content.</td>
<td>59</td>
<td>4.39</td>
<td>.929</td>
</tr>
<tr>
<td>Conflict resolution framework enhances accountability in implementing local content.</td>
<td>59</td>
<td>4.51</td>
<td>.504</td>
</tr>
<tr>
<td>Conflict resolution framework formulates standard operating procedures for necessary implementation of local content.</td>
<td>59</td>
<td>4.39</td>
<td>.492</td>
</tr>
<tr>
<td>Local policies enhance availability of information on oil and gas activities.</td>
<td>59</td>
<td>4.25</td>
<td>.902</td>
</tr>
</tbody>
</table>
4.5.2 Correlation between Local Policies and Local Content Implementation

Correlational analysis was conducted by the researcher to determine the relationship that exists between the independent variable local policies and dependent variable local content implementation. The findings in Table 4.12 revealed that there exists a significant and positive relationship between local policies and implementation of local content, \( r (0.728); \) p-value < 0.01.

**Table 4.13: Correlation between Local Policies and Local Content Implementation**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Local Content Implementation</th>
<th>Local Policies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Content</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Implementation</td>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>59</td>
</tr>
<tr>
<td>Local Policies</td>
<td>Pearson Correlation</td>
<td>.728**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>59</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

4.5.3 Regression Analysis between Local Policies and Implementation of Local Content

A regression analysis was also carried out to establish the underlying relationship between the study variables both the independent and dependent variable, where in this case local policies is the independent variable and local content implementation is the dependent variable.

The findings in Table 4.14 represents a regression model summary between local capabilities and local content implementation. The findings revealed a R squared value of (0.530), this implies that local policies accounts for 53% variability in local content implementation while the remaining 47% variability is attributed to other factors outside the regression model.
Table 4.14: Regression Analysis between Local Policies and Implementation of Local Content

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.728a</td>
<td>.530</td>
<td>.522</td>
<td>.08269</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Local Policies

4.5.4 ANOVA between Local Policies and Implementation of Local Content

The Analysis of Variance presented in Table 4.15 shows F-statistic value = 64.245 and a p-value of 0.000. This indicates that; F (1, 57) = 64.245, p = 0.000 (p < 0.05), this implies that the relationship between local policies (independent variable) and local content implementation (dependent variable) is statistically significant. The relationship between local policies and local content implementation is significant because the p-value of 0.000 is less than the satisfactory level of 0.05.

Table 4.15: ANOVA between Local Policies and Implementation of Local Content

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>.439</td>
<td>1</td>
<td>.439</td>
<td>64.245</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>.390</td>
<td>57</td>
<td>.007</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>.829</td>
<td>58</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Local Content Implementation
b. Predictors: (Constant), Local Policies

4.5.5 Coefficient for Local Policies and Local Content Implementation

The findings in Table 4.16 shows a Beta Coefficient value for the variables under investigation as, constant ($\beta_0$) = 3.049 and beta for local capabilities ($\beta_1$) = 0.320. The p-value for local policies was recorded as 0.000 (P= 0.000, p < 0.01. The regression equation was computed as follows:
Implementation of Local Content ($Y = 3.049 + 0.320 \text{ Local Policies}$

Therefore, the findings mean that for every unit change for local policies there will be a 0.320 change in implementation of local content.

**Table 4.16: Coefficient for Local Policies and Local Content Implementation**

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficients</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>3.049</td>
<td>.178</td>
</tr>
<tr>
<td></td>
<td>Local Policies</td>
<td>.320</td>
<td>.040</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Local Content Implementation

**4.6 Chapter Summary**

This chapter offered the findings of the study obtained from the respondents. The first section presents the demographic information of the respondents, followed by the findings of local infrastructure and local content implementation, findings on local capabilities and local content implementation and lastly the findings on the effect of local policies on local content implementation. Chapter five provides the discussion, conclusion and recommendations based on the study findings.
CHAPTER FIVE

5.0 DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction
This chapter highlights the summary of the study, provides the discussion, conclusion and recommendations of the study based on the findings gathered from the respondents. The objectives of the study form the basis for the discussion, conclusion and the recommendations of this study.

5.2 Summary
The general objective of this study was to examine the determinants of local content implementation in upstream oil and gas in Kenya with a cased study of Africa Oil Corporation. The study was guided by the following research objectives; to establish the effect of local infrastructure on successful implementation of local content, to determine the effect of local capabilities on successful implementation of local content in Africa Oil Corporation and to determine the effect of local policies on successful implementation of local content in Africa Oil Corporation.

This study adopted descriptive survey design as its research design to integrate various elements of the study to meet its intended objectives. The study had a population of 106 employees working at Africa Oil Corporation yielding a sample size of 84 respondents. Stratified sampling technique was used and a questionnaire deployed to collect primary data from the target population. Data analysis involved both descriptive and inferential statistics and SPSS software version 24 was used in analyzing data. The findings were presented using tables and figures.

This study aimed at determining how local infrastructure determines the successful implementation of local content at Africa Oil Corporation. The findings of this study revealed that there exists a significant relationship between local infrastructure and successful implementation of local content, $r(0.753)$; p-value $<0.01$. The findings further revealed that local infrastructure contributes to 56% of variation in successful implementation of local content.
This study also sought to determine the effect of local capabilities on successful implementation of local content at Africa Oil Corporation. The findings revealed that there is a significant relationship between local capabilities and successful implementation of local content at Africa Oil Corporation, r (0.753); p-value < 0.01. The findings also revealed that local capabilities contribute to 9.3% variation in successful implementation of local content.

Last but not least, this study also sought to determine how and to what extent local policies impact on successful implementation of local content at Africa Oil Corporation. The findings revealed that there is a positive and significant relationship between local policies and successful implementation of local content, r (0.728); p-value < 0.01. The findings revealed an Adjusted R squared value of (0.522), this implies that local policies accounts for 55.2% variability in local content implementation.

5.3 Discussion
5.3.1 Local Infrastructure and Implementation of Local Content

The findings of this study sought to determine the effect of local infrastructure on successful implementation of local content. The findings of this study revealed a statistically significant relationship between local infrastructure and implementation of local content. According to Mwakali and Byaruhanga the discovery of oil in the most marginalized county in the republic of Kenya, brought with it the numerous blessings associated with the development of the requisite infrastructure that is required for the successful implementation of exploration efforts. There was the much need of opening up the rural and remote areas for access in a bid to ease the exportation of the precious commodity. Massive amount of funds were required to be invested as the area received little or no developmental support at all. Ayentimi (2016) on the other hand argues that the availability of certain conditions such as information technology, local company’s needs, standards, social, educational in the local petroleum industry is the primary concern of local infrastructure factor. Because providing and maintaining the necessary infrastructure would add to higher level of social welfare, it is essential for local supply industry to be more competitive. IT infrastructure is definitely an important variable, which has a substantial impact on local content development. It is necessary for information dissemination, which
is one of important policy principles, to foster local content in the oil industry (Ban & Hadikusumo, 2017).

The findings of this study revealed that local capacity development is essential for legislative framework governing exploration activities. According to Anyentimi (2016), the collaboration between the government of the host country and the major players in the petroleum activities ought to be focused on how to involve domestically-based companies with local labor. Attention must be on how to facilitate their participation in the domestic petroleum activities without compromising quality, health, safety and environmental standards. Public utilities like roads, railways and air transport, telecommunications, electricity and water supply as local development infrastructure can create an environment, which enables for local development and productivity (Arruda, 2014). According to Amponsah-Tawiah (2015), the standard of this infrastructure will influence profitability considerations for investors. Social infrastructure is associated with social cohesion between different social groups, which reduces the chances of social disorder. A stable environment attracts foreign investments and contributions to technology transfer.

The findings of this study show that safety standards are essential for successful implementation of local content. These findings are in line with the findings of Ablo (2015) who argues that when thinking oil and gas exploration, safety and efficiency always comes first. The aspect of safety cannot be undermined or ignored. To protect lives and investments, there is requirement that the company undertaking the oil exploration invest in better safety lessons for their teams. Safety is paramount and there has to be constant drills in regards to safety in order to keep the team always prepared for any eventuality and possess the accurate knowledge of how to deal with any eventuality. How effectively the commodity gets to the market is a matter that has to be taken with concern. The oil and gas sector relies on the volumes that are produced (Amponsah-Tawiah, 2015). Exploration is always an expensive exercise and the volumes really matter for the exercise to make a return on investment. The issue of safety cannot be ignored since the commodity in question is of a high volatility nature and the support infrastructure for the exploration is always expensive (Mwakali & Byaruhanga, 2013).
The findings have also revealed that Logistics infrastructure enhances successful implementation of local content. These findings confirm with those of Sergi and Berezin (2015) indicating that providing the logistical solution for oil and gas exploration is not always an easy task. The projects are always massive and complex in nature. The location for projects are usually in the remote and far regions that not easily accessible. For example the offshore oil and gas exploration requires technical knowledge for access to these areas as there are always located in the deep sea. Even in the most established oil producing countries, the oil fields are located far away from the human population and there is often little or no infrastructure to access to the areas. The massive equipment always makes the access to these areas a challenge. It is mostly a well-coordinated project that require that every stakeholder avail what is required and when is required (Bond, 2014). It is an exercise that always requires careful planning and execution. It always requires creativity in the side of the companies that are providing the logistics since some goods that are required for the oil and gas exploration are difficult to be transported through normal channels such as public roads in that they may bring about inconveniences in the general public order (Ablo, 2015).

5.3.2 Local Capabilities and Implementation of Local Content

The second research objective of the study sought to determine the effect of local capabilities on successful implementation of local content. Effiong (2010) argues that the first level of capability in the oil and gas exploring firms is the operational capability by the company. How a company can fully utilize its resources for the good and outcome of the industry is a critical factor in determining its success rate by the company. Operational capabilities are not only tied to the amount of monetary resources by the firms but also the level of knowledge by the firm. The right level of knowledge and money put together produces fantastic results for the successful implementation of oil and gas exploration (Ihua & Ajayi, 2011). A firm’s level of innovation also adds to the advantage of its capabilities towards dealing with successful oil and gas exploration. According to Amponsah-Tawiah (2015), capabilities can also be borrowed from one firm to another. The sharing of knowledge, inbound our outbound outsourcing, adds to the success of capabilities by the firm. Knowledge from innovation and any other knowledge are necessary in building the operational capabilities by firms. Arruda (2014), the oil and gas industry is also a very competitive industry. The firm in the exploration activities has to possess a dynamic capability to meet the demands of the industry.
The findings of this study revealed that Local capabilities enhances the adoption of technological methods of exploration. According to Chi, Ma and Ning (2012), the success of any firm is pegged on how effectively it can utilize technology. Technology creates efficiencies for the firm. An efficient firm in the production of goods and services has a competitive advantage over other firms in the same industry. Efficiency aids in creating the proper utilization of resources for the better outcome by the firm (Ablo, 2015). An investment in the technological capacity by the firm may seem an expensive adventure by the firm. It is however critical to realize that an investment in technology is actually a venture that pays off in the long run and saves so much for the company. Technology keeps on mutating at a very fast rate and therefore keeping up with the trends may seem difficult for the firm (Fred, Nduhura, & Agaba, 2018). A technology that may be fashionable in this decade in the fields of oil and gas exploration may seem irrelevant in the next decade. This is because of the changing trends and needs of the industry and the market itself.

In addition, Chi, Ma and Ning (2012), suggest that technology is developed for the purpose of enhancing efficiency. The oil and gas exploration has not been left behind in the development of efficient technologies since the demand for oil and gas keep on changing and there is need for discovering many other oil fields as the current ones are at the verge of depletion. Smart drilling has been seen by industry expert as the future to oil and gas exploration (Ayentimi, 2016). Firms should harness a more harmonized approach to exploration of the oil blocks. Smart drilling encompasses the use of intelligence and information to conduct the drilling. Information such as the geological data is key in making investment decisions by the firm in a bid to actually save on the inconveniences and the losses that may occur when information is not readily made for use. Geological surveys have made this activity easy as it is easier to make decisions on geological surveys more accurately (Mwakali & Byaruhanga, 2013).

The findings of this study revealed that strategic planning enhances a successful implementation of local content, According to Al-Turki (2011), strategic planning actually involves careful planning and understanding of both the needs and trends of the industry, the expectations by the shareholders of the exploring firms, the expectations of the needs of the community and the impact on the community from the activities of oil exploration and also the expectation of the government. Elbanna (2010) argues that the distribution chain actually right from exploration has to be carefully planned. The demand chain for the
oil and gas is faced with a myriad of challenges such as price fluctuation and heavy government taxation. Inkpen and Ramaswamy (2017) argues that the demand for oil is on the rise and the tweaking with the supply of the commodity actually goes a long way towards altering of the prices of the product. With the massive amounts of resources under investments, price fluctuation of resources actually affects the internal rate of return by the company. Baptiste and Nordenstam (2010) argue that the activities of oil exploration can be life changing in that the billions of dollars that go into these activities actually benefit the local population. The activities create a parallel economy in that local businesses actually take advantage in supplying the exploring companies with materials, aside creating job and other value to the local community.

5.3.3 Local Policies and Implementation of Local Content

The third objective of this study sought to determine the effect of local policies on successful implementation of local content. The findings revealed that there is a significant and positive relationship between local policies and successful implementation of local content. According to Shortland (2015), local policies are concentrated in a range of economic sectors including oil and gas industry. These policies include public and industrial policies, which are concerned with sustainable economic development. The public inputs to any production process tend to require a number of coordinated policy reactions, so they are often more extensive than assumed. Even highly developed economies rely on active policies to increase the local content generated by local manufacturing and services companies (Effiong, 2010). These policies will general a more forecasted macroeconomic environment, increase the reliability of institutions and the legal system, provide incentives to enhance sound local practices, generate a more enabling infrastructure for local development, and enhance social structures, which would contribute to inclusion and participation (Amponsah-Tawiah, 2015).

Ibrahim (2008), argued that a local content policy must be outlined with cautious considerations to shun damaging the opportunities for local development outside the oil sector. If a policy is to be successful in augmenting local content in the oil and gas activities and subsequently enhance industrial development, decision makers at all levels are required to share the objective of making contribution to national wealth through industrial growths (Enabulele, Zahraa, & Ngwu, 2016). Public policies can execute different functions such as establishing company registries, appointing norms, enforcing
contracts, laws and strategies, and providing infrastructure aligned with planned local content objectives. It is necessary for the government to increase local skills, local know-how, technology, capital market development, wealth capture, and wealth distribution to create the conditions for domestic companies to emerge (Ban & Hadikusumo, 2017).

The findings of the study revealed that local policies enhance cooperation between the government and the organization. According to Sumbal and Berendrecht (2017), at the core of successful oil and gas exploration is the quality of policies surrounding these activities. A robust policy framework is important in dealing with issues that may arise out of conflict of interest. There are many interest groups in the oil and gas industries. The oil and gas industry value chain is designed to create value from the least of them all in the value chain, the local community to the largest stakeholder in the oil and gas exploration activity that is the people through representations by their government (Al-Turki, 2011). One of the issues that is articulated in the oil and gas exploration and is subject to proper legislative framework is land (Alciatore & Dee, 2006). Land as a factor of production for many communities around the world, is an emotive issue. It is an issue that has caused contention in the many communities and the conflicts brought about by land has led to fatalities.

The findings of the study have also shown that supporting legislation enhances working relationship between stakeholders for a successful implementation of local content. According to Arruda (2014) legislation has to be progressive for it to work. The reason for a progressive legislation is because the oil and gas sector keeps on changing at a rapid rate. The changing technologies and demands for the precious commodity, oil, are rapidly changing and there is need for an open-ended legislation to govern these needs. There has to be a wide consultation from across the globe in the event of drafting the legislation as failure to that has always resulted to conflict of interest (Ban & Hadikusumo, 2017). There are countries that are leaders in the oil and gas exploration industry and borrowing or adoption on their legislative framework is essential. For example, the United States of America is a leader in the oil and gas exploration and owns a sizable portion of lands and seabed that are rich in crude. The country is a leader in enactment of the oil and gas legislation and has a rich history of enforcing the oil and gas laws (Sergi & Berezin, 2015).
The findings of the study revealed that availability of information on oil and gas is essential for successful implementation of local content. According to Ebrahimi, Genovese and Kumar (2018) availability of information concerning oil and gas activities is crucial in enhancing local policies that protect the interests of communities in which oil and gas is explored. A citizen or an organization is empowered when it has access to information. There has to be records in a public office in regards to the activities of exploration and any other activities by oil firms. It should be easy to obtain information and in the shortest time possible. Information should be such that it is easily accessible when required (Arruda, 2014). Openness in the field of oil and gas exploration leads to one to acquire the information that is critical in decision making or any lobby or interest groups. Access to information should be affordable as prohibitive costs sanctions or bars one from access of information. In an event of a public participation on a consultative forum, information and its easy access will help the stakeholders participate in a more inclusive form (Rouse, 2016). The stake holders will be able to articulate their view and opinions in a more upright way. Information access ensures inclusivity of all the stake holders.

5.4 Conclusion

5.4.1 Local Infrastructure and Implementation of Local Content
This study concludes that there is a significant relationship between local infrastructure and successful implementation of local content. This study concludes that local infrastructure enhances certain conditions like information technology, local company’s needs, and standards, social, educational in the local petroleum which are essential in implementing local content. This study concludes that information infrastructure is an important variable which has a substantial impact on local content development. This study concludes that logistics infrastructure is crucial for successful implementation of local content implementation.

5.4.2 Local Capabilities and Implementation of Local Content
This study concludes that local capabilities plays a crucial role in successful implementation of local content. This study concludes that having the right knowledge and funding put together enhances results for the successful implementation of local content. A firm’s level of innovation also adds to the advantage of its capabilities towards dealing with successful oil and gas exploration. Knowledge from innovation and any other knowledge are necessary in building the operational capabilities by firms.
5.4.3 Local Policies and Implementation of Local Content
This study concludes that local policies are essential for successful implementation of local content. Local policies enhances creation of robust policy framework which is important in dealing with issues that may arise out of conflict of interest. There are many interest groups in the oil and gas industries. The oil and gas industry value chain is designed to create value from the least of them all in the value chain, the local community to the largest stake holder in the oil and gas exploration activity that is the people through representations by their government. This study concludes that local policies is essential in creating a conflict resolution framework to solve conflict of interests that may exists among the stakeholders involved in oil and gas projects.

5.5 Recommendations
5.5.1 Recommendations for Improvement
5.5.1.1 Local Infrastructure and Implementation of Local Content.
This study recommends that Africa Oil Corporation should invest in the necessary local infrastructure for successful local content implementation in upstream oil and gas in the country. This study recommends that Africa Oil Corporation should seek assistance to various stakeholders both locally and international in order to create a local infrastructure that will support logistics as well as operations involved for successful exploration of oil and gas.

5.5.1.2 Local Capabilities and Implementation of Local Content
Since this study established a significant relationship between local capabilities and successful implementation of local content. This study recommends that Africa Oil Corporation should develop technological capabilities as well as innovation that can sustain its operations in the long run. This study recommends that Africa Oil Corporation should develop a conscious environmental approach by using extraction technologies that are environmental friendly to avoid environmental pollution in the environment in which it operates.

5.5.1.3 Local Policies and Implementation of Local Content
This study recommends that Africa Oil Corporation should partner up with the government in developing necessary policies that are essential for a successful implementation of local
content. This study recommends that Africa Oil Corporation should invest in knowledge management system to ensure availability of information to avoid conflict of interest with various stakeholders. This study also recommends that Africa Oil Corporation should invest in conflict resolution framework that will ensure disputes are solved among stakeholders involved.

5.5.2 Recommendations for Further Studies

This study focused on the determinants of local content implementation in upstream oil and gas in Kenya. The study was limited to three variables that is local infrastructure, local capabilities and local policies in line with implementation of local content. Future studies should focus on other variables such as information technology, public participation and funding.
REFERENCES


APPENDICES
APPENDIX I: COVER LETTER

14TH JUNE, 2019,
P.O. BOX 14634-00800,
NAIROBI
Dear Sir/Madam,

RE: REQUEST FOR PARTICIPATION IN MY STUDY
I am a student at the United States International University (USIU-AFRICA) currently pursuing a Master’s in Business Administration (MBA). In partial fulfilment of my master’s program, I am currently working on my master’s thesis entitled, “Determinants of Local Content Implementation in Upstream Oil and Gas in Kenya: A Case of Africa Oil Corporation”
The study will beneficial to the entire energy and fuel sector in that it will offer information on various determinants of local content implementation in upstream oil and gas in Kenya. Your views and opinions are confidential, and your name will not be used anywhere in the study or findings. Kindly take few minutes to answer the questionnaire to the based on your knowledge.

Yours Sincerely,

Leparan Gideon Morintat
APPENDIX II: QUESTIONNAIRE

SECTION I: GENERAL INFORMATION

1. Kindly indicate your gender

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
</table>

2. Kindly indicate your age range

<table>
<thead>
<tr>
<th>18-25 Years</th>
<th>26-33 Years</th>
<th>34-40 Years</th>
<th>41-47 Years</th>
<th>48 and Above</th>
</tr>
</thead>
</table>

3. Kindly indicate the number of years you have worked at your organization

<table>
<thead>
<tr>
<th>0-1 Years</th>
<th>2-4 Years</th>
<th>5 Years</th>
<th>6-10 Years</th>
<th>Above 10 years</th>
</tr>
</thead>
</table>

4. Kindly indicate your highest level of education.

<table>
<thead>
<tr>
<th>Certificate</th>
<th>Diploma</th>
<th>Bachelor’s Degree</th>
<th>Master’s Degree</th>
<th>Doctorate Degree</th>
</tr>
</thead>
</table>
SECTION II: Local Infrastructure and Implementation of Local Content in Oil and Gas

Kindly answer the following questions to the best of your knowledge using the following Likert scale. Strongly disagree = 1, disagree = 2, neutral = 3, Agree = 4, strongly agree = 5

<table>
<thead>
<tr>
<th>No</th>
<th>Questions</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Local infrastructure is necessary for successful implementation of local content.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Information technology infrastructure enhances successful implementation of local content.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Local infrastructure enhances investment opportunities in oil and gas.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Safety standards are essential for successful implementation of local content.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Logistics infrastructure enhances successful implementation of local content.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Local capacity development enhances successful implementation of local content.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Local capacity development is essential for funding operations of exploration of oil and gas.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Local capacity development enhances knowledge creation on exploration activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Local capacity development is essential for legislative framework governing exploration activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Local capacity development enhances the relationships with communities in which exploration takes place.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### SECTION III: Local Capabilities and the Implementation of Local Content

Kindly answer the following questions to the best of your knowledge using the following Likert scale. Strongly disagree = 1, disagree = 2, neutral = 3, Agree = 4, strongly agree = 5

<table>
<thead>
<tr>
<th>No</th>
<th>Questions</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.</td>
<td>Local capabilities are essential for operational efficiency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Local capabilities enhance resources utilization in the organization.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Local capabilities enhance dynamic capability to meet the demands of the industry.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>Local capabilities are essential for developing exploration technology.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>Local capabilities enhances the adoption of technological methods of exploration.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>Development of technology enhances efficiency in the company’s operations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21.</td>
<td>Strategic planning enhances a successful implementation of local content.</td>
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<td>22.</td>
<td>Strategic planning is essential in the understanding of key trends in the industry through environmental scanning.</td>
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<td>23.</td>
<td>Environmentally conscious approach to oil and gas exploration is essential for successful implementation of local content.</td>
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<td>24.</td>
<td>Environmentally conscious approach to oil and gas exploration enhances efficiencies and better capacity to reduce emissions.</td>
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SECTION IV: Local Policies and the Successful Implementation of Local Content

Kindly answer the following questions to the best of your knowledge using the following Likert scale. Strongly disagree = 1, disagree = 2, neutral = 3, Agree = 4, strongly agree = 5

<table>
<thead>
<tr>
<th>No</th>
<th>Questions</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<tbody>
<tr>
<td>25</td>
<td>Local policies influence successful implementation of local content.</td>
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<td>26</td>
<td>Local policies enhances development of local infrastructure necessary for implementation of local content.</td>
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<td>27</td>
<td>Local policies enhances cooperation between the government and the organization.</td>
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<td>28</td>
<td>Local policies are essential for conflict resolution between the communities in which the company operates and the company itself.</td>
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<td>29</td>
<td>Having supporting legislation in oil and gas exploration is significant to the implementation of local content.</td>
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<td>30</td>
<td>Supporting legislation enhances working relationship between stakeholders for a successful implementation of local content.</td>
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<td>31</td>
<td>Conflict resolution framework enhances accountability in implementing local content.</td>
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<td>32</td>
<td>Conflict resolution framework formulates standard operating procedures for necessary implementation of local content.</td>
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<td>33</td>
<td>Local policies enhance availability of information on oil and gas activities.</td>
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<td>34</td>
<td>Availability of information on oil and gas is essential for successful implementation of local content.</td>
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<td>35</td>
<td>Availability of information on oil and gas enhances conflict resolution between stakeholders.</td>
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</tbody>
</table>

Thank you very much for your participation in this study.
APPENDIX III: NACOSTI PERMIT

This is to certify that Mr. Loparan Maristat of United States International University Africa, has been licensed to conduct research in Nairobi, Nairobi, Nairobi, on the topic: Determinants of Local Content Implementation in Upstream Oil for the period ending: 14/08/2020.

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APPENDIX IV: RECOMMENDATION LETTER

25 July 2019

To whom it may concern

RESEARCH PROJECT BY – LEAPARAN GIDEON MORINTA ID: 655891

The bearer of this letter is a student at the United States International University-Africa pursuing a Master of Business Administration: Strategic Management.

As part of the program, he is required to undertake a research project on “Determinants of Local Content Implementation in Upstream Oil & Gas in Kenya: A Case Study of Africa Oil Corporation.” This requires him to collect data and information from various relevant institutions.

Kindly assist by enabling him access data, information and contacts with respondents who can complete his questionnaires. I assure you that the information provided will be treated with the utmost confidentiality.

Should you have any queries regarding the student research, please feel free to contact me on my email, drgideonmorinta@gmail.com or phone, +254 730146119

Yours sincerely,

Dr. Kevin Dinga
Associate Dean, Chandaria School of Business