

DETERMINANTS OF LOCAL CONTENT DEVELOPMENT ON SUCCESSFUL IMPLEMENTATION OF OIL AND GAS EXPLORATION, DEVELOPMENT AND PRODUCTION IN KENYA: A CASE OF AFRICA OIL CORP

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# DETERMINANTS OF LOCAL CONTENT DEVELOPMENT ON SUCCESSFUL IMPLEMENTATION OF OIL AND GAS EXPLORATION, DEVELOPMENT AND PRODUCTION IN KENYA: A CASE OF AFRICA OIL CORP

Morintat, L. G.,1\* & Ouma, C.2

<sup>1\*</sup>Master Candidate, United States International University [USIU], Africa <sup>2</sup>Professor, Ph.D, Lecturer, United States International University [USIU], Africa

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## **ABSTRACT**

The need for a structured dialogue on local content in Kenya has been incentivized by the discovery of oil and other commercially viable minerals. The study sought the determinants of local content development on successful implementation of oil and gas exploration and production within Africa Oil Corp. The specific objectives were to establish the required local infrastructure for successful implementation of oil and gas exploration, development and production, to determine the required local capabilities for the successful implementation of oil and gas exploration, development and production and to determine how local environment affects the successful implementation of oil and gas exploration, development and production in Africa Oil Kenya Business Venture. The study adopted a descriptive research design. The target population included directors of the Africa Oil Corp. Top and Middle management levels, subordinate and selected employees of the company. The study had a total population of 324. The study employed the simple stratified random sampling technique. The sample size of the study consisted of 176 respondents selected from the study population for the quantitative data. Both descriptive and inferential statistics were employed to analyze and test the research hypotheses. A linear multivariate regression model was used to measure the relationship between the independent variables and the dependent variable. There was a positive and significant effect of local infrastructure, local capabilities and local capabilities on successful implementation of oil and gas exploration, development and production. The company in partnership with the government should ensure the availability of the required infrastructure to promote the local oil and gas exploration, development and production. The Company should therefore carefully examine what types of careers they offer their workers to facilitate the necessary expertise required in the oil exploration and production. The government should provide conducive environment for the exploration, development and production of local oil and gas exploration.

**Key Words;** Local Infrastructure, Local Capabilities, Local Environment, Successful Implementation of Oil and Gas Exploration, Development and Production

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#### INTRODUCTION

Local content is an approach where a country strategizes on how their resources are used to benefit the locals and attain substantive significance level of social, economic and sustainable progressiveness. 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 (national, regional and local areas in that country, including communities) through the activities of the oil and gas industry. 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, are 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 and achieve prosperity and ensure sustainable economic and social outcomes. 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 el cetera (Salimu, 2016)

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. In the recent years, a growing number of developed countries are adopting the local content requirements as a condition for exploration and development and production of oil and gas resources in their countries, for instance, Brazil local content have been created for the development of indigenous industries by protecting domestic markets against free imports of goods like drilling rigs, oil platforms and subsea equipment. In most developed countries such as United States of America, the local content concept has been implemented in the form of the socalled 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).

The Middle East and North Africa region are home of the largest exporters of oil and natural gas, they hold the world largest proven gas reserves. The region 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 this countries following the global fluctuations of oil prices.

Over the last 40 years, developed countries such as United Kingdom and Norway have 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. 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.

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).

National oil companies in most African countries have an important role to play in the development and implementation of the local content. For instance, in Ghana, Ghana National Petroleum Company has promoted the involvement of Ghanaians in offshore and onshore activities through providing certain services such as the real estate and hospitality.

The Nigerian 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).

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. (Cindy, 2015). 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. Figure 1shows the results of the drilled of the petroleum exploration wells in various basins and exploration blocks of Kenya.

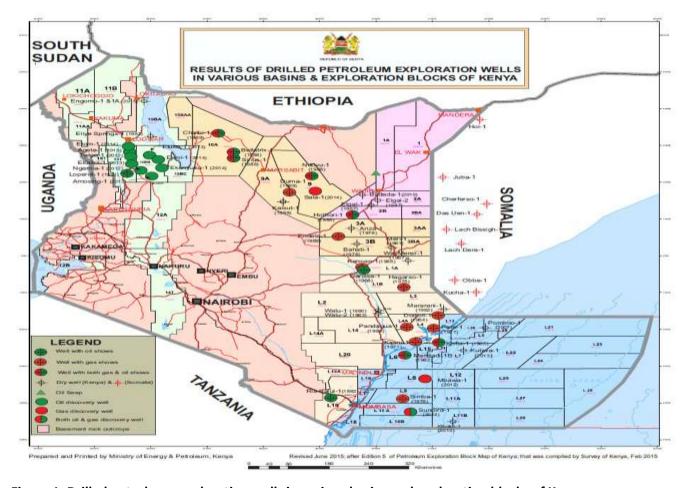


Figure 1: Drilled petroleum exploration wells in various basins and exploration blocks of Kenya

Africa Oil Corp. 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 (Africa Oil Corp, 2018).

Africa Oil Corp. 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 (Africa Oil Corp, 2018). 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 Corp, 2018). Also, they are the operator in the Cretaceous Rift system in the area between Marsabit and Wajir in Northern Kenya.

Africa Oil Corp. has made extensive oil discoveries in the South Lokiachar Basin of the Tertiary Rift trend in Kenya. In the last three years, the company has been undertaking exploration and appraisal activities on its oil wells at the Ngamia and Amosing sites in South Lokichar basin in Turkana County in Kenya. Africa Oil Corp. and its joint venture partners Tullow Oil plc and Maersk Olie og Gas A/T are at the initial stage of development in Ngamia and Amosing oil fields. The front end engineering design (FFED) is expected to commence in 2018 and the final investment decision (FID) was completed in 2019. The first oil will be exported in 2021 or 2022. The initial development will include the construction of a crude oil pipeline from Lokicahar to Lamu, a distance of about 750 kilometers (Africa Oil Corp, 2018).

## 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 (Institute for Human Rights and Business, 2017).

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, incountry spending and procurement of local goods and services, technology and skills transfer, and local participation through equity and management (Stratmore University, 2015).

Spurred by periodic unrest and complaints from the locals, there has been a lot of talk of implementing effective and efficient local content polices 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).

The evolving concept of local content has sparked conversations in the recent past, with stakeholders having different views as to what it means in the Kenyan context. One such forum is the Public Debate on the Local Content Bill 2016 hosted by Strathmore Extractives Industry Centre in 2016. The purpose of the debate was to interrogate the provisions in the Bill to determine whether they sufficiently and efficiently promote productive linkages with the local economy. These conversations present a good case for all industry stakeholders to come together and deliberate on how to design a policy framework that can effectively drive local content in the oil and gas sector in Kenya.

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.

To address these challenges and in an attempt to institutionalize the concept of local content development in Kenya, the government through the ministry of Petroleum and Mining has introduce a legal and regulatory framework through the yet to be enacted Petroleum Exploration Development and Production Bill 2017.

Once enacted into law, the bill will enable the formulation of a policy framework that will further enhance the development of the other determinants of local content development such as infrastructure development, local capabilities development and local communities' collaboration a concern that has

been highlighted by the various oil and gas exploration companies in the country.

For instance, Africa Oil Corp.'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. 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 (Africa Oil Corp. 2018).

## **Objectives of the Study**

The general objective of this study was to analyze the determinants of local content development on successful implementation of oil and gas exploration and production within Africa Oil Corp. The specific objectives were;

- To establish the required local infrastructure for successful implementation of oil and gas exploration, development and production in Africa Oil Corp.
- To determine the required local capabilities for the successful implementation of oil and gas exploration, development and production within Africa Oil Corp.
- To determine how local environment affects the successful implementation of oil and gas

exploration, development and production in Africa Oil Kenya Business Venture

#### LITERATURE REVIEW

#### **Local Infrastructure**

The availability of certain conditions such as information technology, local company's needs, standards, social, educational, etc. 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 (INTSOK, 2003). Klueh, et al. (2007) recommended the establishment of a public outreach and analysis office to (i) develop a registry of competent and qualified local vendors, (ii) advise locals on potentials for joint ventures and other mechanisms of cooperation with foreign companies, and (iii) support plans for local capacity building, training, and R&D. For example, major oil companies have jointly introduced portals for e- commerce, such as Trade Ranger, owned by 15 oil and petrochemical companies including BP, shell, Botulinal and Statoil, and it has at present more than 1000 supplier members. The collaboration between 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 (Heum et al., 2011). 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. The standard of this infrastructure will influence profitability considerations for investors (INTSOK, 2003). 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 (Heum et al., 2011).

# **Local capabilities**

Local capabilities include education, skills and expertise development, transfer of technology and know-how and an active research and development portfolio within manufacturing and services of local companies (Ministry of energy of Republic of Ghana, 2010). Industrial growth is not something, which could be decided by politicians but it is a result of demanding interplays between established and emerging industrial capabilities (Heum et al., 2011). Developing local content in the petroleum sector must be based on existing capabilities within manufacturing, fabrication, and services. In other words, successful strategies determine which existing products and services the country can generate profitably. However, many countries maintain a weak industrial base and local policies commonly maintain some measures, which permit for the preferential treatment of domestic companies (Tordo et al., 2011). According to Nordås (2003) local policies have to appreciate and encourage foreign firms to collaborate with local companies. In turn, this should be expected to give impulses and create dynamics, which would have positive influence on the development of indigenous firms.

Industrial development is a learning process, where capacity and capabilities expand through a process of solving challenging tasks in collaboration with internationally leading competence (Heum et al., 2011). Auty (2006) studied the importance of learning in the industrial development and explained that presence of learning impacts

benefits both the investing firm and the local economy. An effective educational system is crucial to improve the learning capacity.

In order to improve the local skills and capabilities and narrowing the technology gap between domestic and foreign companies, there must be an industrial infrastructure to build on (INTSOK, 2003). In Ghana, the local training and technical institutions are supported by both government and petroleum operators to develop the necessary capacity to train Ghanaians to higher levels required by the industry in drilling and support services, marine, catering and housekeeping, supplies and other support services (Ministry of energy of Republic of Ghana, 2010). The importance of adoption is essential because maybe the inputs from host is not the same as for those the equipment was designed. The ability of any company to absorb the advanced technology depends on the organizational and technical capabilities of the company (Cusumano & Elenkov, 1994).

Third world countries need to develop their technological capacity, but the abilities of these countries is limited by their reliance on low level of absorption of technology (Kumar et al., 1999). Recent research by Escribano, et al. (2009) suggested that the capacity for absorption is in fact a source of competitiveness. In other words, absorption capacity of the local company plays a crucial and important role in technology transfer process.

## **Local Environment**

Next factor is local environment in which all local policies, local capabilities, local infrastructure and the interaction among these factors are formed. One of the important variables is the macroeconomic environment, which is decisive for the factors, which are necessary for any investment decisions such as development of domestic prices, the exchange rates for the local

currency, and the interest rate. Some particular government policies impact the environment for investments and local development. Encouraging competitiveness develops competitive oil and gasbased industry. This environmental context is essentially the same for any country with ambitions to develop oil-related locales (INTSOK, 2003). For instance, in the early 1990s: the UK's government in the context of a strengthened relationship with the European union, moved its focus from promoting local content within the UK offshore oil and gas industry to help private investors develop export markets in a competitive environment (Klueh et al., 2009). The recent country analyses and papers specify that to prevent the pitfalls of resource abundance, the countries must proactively establish a sound institutional structure and macroeconomic management (IMF, 2006). It is necessary to make sure that the leading international firms continue to choose to participate in the domestic industry, because local content requirements identified in other industries seem to create a local environment that is most attractive to less efficient, high-cost investors. This is because the less efficient have the lowest switching costs, i.e. They have less to lose from selecting more expensive suppliers than more efficient producers (Heum et al., 2011).

#### **METHODOLOGY**

The 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 (Polit and Hungler 2004). The study population in this research was drawn from the employees in Africa Oil Corp. The target population included directors of the Africa Oil Corp, Top and Middle management levels, subordinate and selected employees of the company. The study had a total population of 324. The study employed the simple stratified random sampling technique. The sample size of the study consisted of 176 respondents selected from the study population for the quantitative data. Data collected from questionnaires were coded and keyed into a computer and analyzed using the Statistical Package for Social Sciences (SPSS version 23.0) and the Microsoft Excel. 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. Simple linear regression analysis and Pearson's Product Moment Coefficient (r) were computed to test hypothesis and to determine the nature and strength of the relationship among the variables, with r ranging from -1 to +1. Multiple regression analysis and ANOVA tests were used to test hypothesis.

### **RESULTS AND FINDINGS**

# **Descriptive statistics**

Local infrastructure and successful local oil and gas exploration, development and production

Table 1: Required local infrastructure for successful implementation

			N	Minimum	Maximum	Mean	Std. Deviation
Information implementation of	technology of local content de	determines velopment.	149	4	5	4.28	0.451
Local company content impleme	needs are esse ntation	ntial in local	149	3	5	3.97	0.434
	fluence the imple elopment and imp		149	2	5	4.21	0.454

The findings revealed that majority of the respondents agreed that information technology determines implementation of local content development (mean of 4.28, standard deviation of 0.451). The results show that majority of the respondents agreed that social factors influence the implementation of local content development and implementation (mean score of 4.21, standard deviation of 0.454) and that local company needs are

essential in local content implementation (mean score of 3.97, standard deviation of 0.434). The findings corroborate with Klueh, et al. (2007) who established that local infrastructure including public utilities like roads, railways and air transport, telecommunications, electricity and water supply can create an environment, which enables for local development and productivity.

## Local capabilities and successful local oil and gas exploration, development and production

Table 2: Required local capabilities for the successful implementation

	N	Minimum	Maximum	Mean	Std. Deviation
Skills are paramount in local content development and implementation	149	3	5	4.19	0.608
Expertise development influences the local content development and implementation.	149	3	5	4.11	0.564
Technological know-how influences the local content development and implementation	149	3	5	3.97	0.441

The study outcomes showed that majority of the respondents agreed that skills are paramount in local content development and implementation (mean of 4.19, standard deviation of 0.608), that expertise development influence the local content development and implementation (mean of 4.11, standard deviation of 0.564). The respondents also agreed that technological know-how influences the

local content development and implementation (mean of 3.97, standard deviation of 0.441). Consistent to the study findings, Tordo et al., (2011) found that developing local content in the petroleum sector must be based on existing capabilities within manufacturing, fabrication, and services.

Local environment and successful implementation of oil and gas exploration, development and production

Table 3: Effect of local environment on the successful implementation of oil and gas exploration, development and production

	N	Minimum	Maximum	Mean	Std. Deviation
Domestic standards determinants on the local content development and implementation	149	3	5	4.00	0.116
Local prices affect the local content implementation and development	149	3	4	3.81	0.392
Interest rates determines the implementation and development of local content	149	2	5	3.71	0.483

The findings showed that majority of the respondents agreed that domestic standards determinants on the local content development and implementation (mean of 4.00, standard deviation of 0.116). Majority

of the respondents further agreed that local prices affect the local content implementation and development (mean of 3.81, standard deviation of 0.392) and also agreed that interest rates determines

the implementation and development of local content (mean of 3.71, standard deviation of 0.483). Similar sentiment was observed by Heum et al., (2011) that a table environment attracts foreign investments and contributions to technology transfer.

#### **Correlation Analysis**

The study carried out correlation analysis between the variables of the study using Pearson product moment correlation coefficient. Correlation coefficient was used to test whether there existed interdependency between independent variables and whether the independent variables were related to the dependent variable.

**Table 4: Correlation Analysis** 

Table 4. Correlation Analysis					
successful implementation	Pearson Correlation	1	•	•	
	Sig. (2-tailed)				
	N	149			
Local Infrastructure	Pearson Correlation	.158	1		
	Sig. (2-tailed)	.015			
	N	149	149		
Local content capabilities	Pearson Correlation	.382**	.103	1	
	Sig. (2-tailed)	.000	.209		
	N	149	149	149	
Local content environment	Pearson Correlation	.219**	298**	257 <sup>**</sup>	1
	Sig. (2-tailed)	.007	.000	.002	
	N	149	149	149	149
**. Correlation is significant at th	e 0.01 level (2-tailed).				

From the outcomes of this research, it portrayed that a positive relationship existed between local Infrastructure and successful implementation of oil and gas exploration, development and production as indicated by the value of 0.158, which is significant as its significance level was 0.00<0.015. There was also a positive relationship between local content capabilities and successful implementation of oil and gas exploration, development and production as

indicated by the value of 0.382, the significant level value was 0.000 and hence significant as it is below 0.05. There as well existed a positive relationship between local content environment and successful implementation of oil and gas exploration, development and production as indicated by the correlation value of 0.219 and was termed significant at the value of 0.007 which was below 0.05.

## **Regression analysis**

**Table 5: Model Summary** 

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.550°	.302	.288	.28673
a. Predictors:	(Constant), local	infrastructure, lo	cal capabilities, local environr	nent

Coefficient of determination technique was deployed to examine the suitability of the model. The model had adjusted  $R^2$  of 0.288 meaning 28.8% of differences in successful implementation of oil and

gas exploration, development and production are explained by the independent variables under study (local infrastructure, local capabilities, local environment).

The research examined the model's significance through application of Analysis of Variance (ANOVA) method.

Table 6: ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.159	3	1.720	20.918	.000 <sup>b</sup>
	Residual	11.921	145	.082		
	Total	17.080	148			

- a. Dependent Variable: successful implementation of oil and gas exploration, development and production
- b. Predictors: (Constant), local infrastructure, local capabilities, local environment

According to ANOVA, the research found the regression model as having a 0.0% significance level that indicated the suitability of the data in coming up with conclusions regarding the parameters of the on the population as p< 5%.

**Table 7: Coefficients** 

Std. Er	ror Beta	t	C:~
		·	Sig.
.803 .803		-2.102	.037
0 .110	.231	3.175	.002
2 .080	.463	6.440	.000
1 .107	.407	5.433	.000
2	.110 2 .080 1 .107	.110 .231 2 .080 .463 .107 .407	0 .110 .231 3.175   2 .080 .463 6.440

 $Y = -1.689 + 0.350X_1 + 0.512X_2 + 0.581X_3 + \varepsilon$ 

As seen from the regression model an additional unit in local infrastructure would result to a 0.35 rise in successful implementation of oil and gas exploration and production within Africa Oil Corp; a unit increase in local capabilities will promote successful implementation of oil and gas exploration and production within Africa Oil Corp by 0.512. An additional unit of local environment would lead to an increase in successful implementation of oil and gas exploration and production within Africa Oil Corp by 0.581 units. A significance level of 5% was used in the analysis. The technique used for comparison of significance of the predictor variables was by comparing the value of probability and  $\alpha$ =0.05. If p< α, predictor variable was significant and vice versa. In the model, predictor variables had probabilities below 0.05 and were therefore significant since  $\alpha$ =0.05.

#### CONCLUSIONS AND RECOMMENDATIONS

There was a positive and significant effect of local infrastructure on successful implementation of oil and gas exploration, development and production. Information technology, social factors and local company needs are essential in local content implementation of oil and gas exploration, development and production.

There was a positive and significant effect of local capabilities on successful implementation of oil and gas exploration, development and production. Skills, expertise development and technological know-how influences the local content development and implementation.

There was a positive and significant effect of local capabilities on successful implementation of oil and gas exploration, development and production. Domestic standards, local prices and interest rates determines the local implementation of oil and gas exploration, development and production.

The company in partnership with the government should ensure the availability of the required infrastructure to promote the local oil and gas exploration, development and production. The company should adopt innovative technologies which is increasing important of in patents.

An oil production company that attracts skilled workers and women must have coherent policies and initiatives focused on advancing their careers. The Company should therefore carefully examine what types of careers they offer their workers to facilitate

the necessary expertise required in the oil exploration and production.

The government should provide conducive environment for the exploration, development and production of local oil and gas exploration. This may be done by providing policies that support the oil and gas exploration companies which may include tax reliefs, friendly interest rates and reasonable pricing. These will enhance successful local oil and gas exploration, development and production.

#### Recommendations for further studies

Future studies should focus on the competitive advantage strategies that are adopted by the companies in the local oil and gas exploration, development and production.

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