

Full Length Research Paper

Sovereignty interest administration strategy and expense of oil and gas generation in the Nigerian Niger-Delta

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This study examined royalty interest management strategy and cost of oil and gas production in the Nigerian Niger-Delta. The respondents were sixteen opinion leaders from two oil and gas bearing communities in Rivers State. The survey research design was adopted for the study. The spearman rank order correlation coefficient was used to test the hypotheses. Results indicated that there is a strong and significant relationship between royalty interest and oil and gas production; and there is a positive and significant relationship between resource control and Niger-Delta development. It was concluded that royalty interest is a source of revenue paid to a land owner by an oil and gas company for the drilling of oil and gas from his domain, which will make the land owner to freely allow the oil and gas company to continue the process of oil and gas production. It was recommended that revenue right of collecting royalty interest from the oil and gas companies should be accorded the Niger-Delta region so that oil and gas production will take place in the region without disruptions; the Niger-Delta should be accorded the right of resource control in order to enable them develop the region in every ramification.

Key words: Royalty interest, management strategy, oil, gas.

INTRODUCTION

Background of the study

Studies have indicated that the Niger- Delta of Nigeria is a hostile ground for the operation of oil and gas companies in recent years (Egan, 1999). Amnesty International (2006) noted that the region has been recognized in the past for special development initiative and attention in the Independence Constitution of 1960. This was because the Pre-Independence Constitution had earlier recog-nized the Niger-Delta as a place with special right for the

ownership of oil and gas resources deposited in the land, but this special right has not been accorded the region till date, as the people of the region are marginalized in the Nigerian polity (Carter, 2007). Moreover, provision of a 50% royalty payment from oil and gas exploitation to the oil producing areas in the region by the Pre-Independence Constitution has even eluded the people of the region. This is because the provision for a 50%

revenue allocation formula has been abrogated by additional constitutional provisions and decrees, thus denying the people of the region access to the natural resources (oil and gas) in their domain (Amnesty International, 2006). As a result, the Niger-Delta people are agitating for the ownership of minerals beneath their ground in order to receive proceeds from the extraction of natural resources like oil and gas, and to fully control the resources in their land (Obi, 2005; Ingersoll and Rose, 1992).

According to Amnesty International (2006), it was observed that oil companies in the region do not pay royalties to the people, rather what the people get are stipends from the practice of corporate social responsibility by the oil companies. This study therefore contends without valid contradictions that royalty interest and other oil and gas revenue are not paid to the Niger-Delta people because their land and resources were forcefully taken away from them by the land use decree. Thus, this study is intended to investigate Royalty Interest Management Strategy and cost of oil and gas production in the Nigerian Niger-Delta.

Statement of the problem

The Oil and Gas Accounting profession has long struggled to provide a solution to the issue of Royalty Interest Management Strategy and cost of oil and gas production in the Nigerian Niger-Delta (Amnesty International, 2006). Egan (1999) noted that the oil and gas industry has greatly degraded the environment of the people of Niger-Delta, and in most ways the sources of livelihood of the people has been eroded. Thus, Omuku (2005), Obi (2005), and Boham (2005) identifies the challenges of development in the Niger-Delta to be community interface and security; crude oil theft; increase pipeline leakages, communal conflict - in particular over land/boundary disputes with oil deposits; youth unemployment; increasing hostility-resource control agitations and relative cost of development in the region. These problems identified by the various scholars are enough reasons why the government should allow the oil rich Niger-Delta to manage the resources in their domains. Hence, in this study, the issue of Royalty Interest Management Strategy and Cost of Oil and Gas Production will be addressed by assessing the following: Do the people of the Niger-Delta, especially those in the oil bearing communities receive royalty interest? Is it lawful in Nigeria for land owners to obtain royalties for the natural resources in their land? Is it justifiable for owners of natural resources not to be stakeholders in the oil and gas industry? This is our point of departure.

Purpose of the study

This study is designed to investigate "Royalty Interest Management Strategy and Cost of Oil and Gas produc-

tion in the Nigerian Niger-Delta: An Accounting Empirical Investigation". Consequently, the study will provide explanations on royalty interest and cost of oil and gas production in the Niger-Delta Oil and Gas environment. Thus, the specific objectives are to:

- find out the extent to which royalty interest payment has helped to enhance sustainable development; and
- assess if the resource control can develop the Niger-Delta.

Research questions

The following research questions founded on the statement of the problem and purpose of the study were raised to guide the study.

- To what extent can royalty interest enhance oil and gas production?
- To what extent can the implementation of resource control through fiscal federalism develop the Niger-Delta?

Research hypotheses

The research hypotheses formulated for the study is guided by the research question.

H₀₁: There is no relationship between royalty interest and oil and gas production.

H₀₂: There is no relationship between implementation of resource control and Niger Delta development.

THEORETICAL FRAMEWORK

The oil and gas accounting discipline studies and analyse how investments in oil and gas exploration, extraction and development activities are carried (Brennan and Schwartz, 1985). According to Obara (2011), the well acclaimed origin of oil and gas is the organic theory. To him, the origin of oil and gas holds that petroleum (hydrocarbons) is formed from ancient land and sea plants and animals that were deposited millions of years ago in low-lying areas normally on the ocean bed (Obara, 2011). Eremosele (1997) opined that the oil and gas sector operates in two broad sectors- the upstream and downstream sectors. The upstream activities involve the acquisition of universal interest in proportion for prospecting, exploration, development and production of oil and gas. While, downstream activities relate to the transportation of oil, gas and derivatives as well as their transformation into finished products, their distribution and marketing (Eremosele, 1997).

According to Ekern (1985), royalties, (sometimes, running royalties, or private sector taxes) are usage-based payments made by one party (the "licensee") to another (the "licensor") for natural resources. Royalties are typically agreed upon as a percentage of gross or net

revenues derived from the use of an asset or a fixed price per unit sold of an item of such, but there are also other models and metrics of compensation (Ingersoll and Rose, 1992). A royalty interest is the right to collect a stream of future royalty payments, often used in the oil industry and music industry to describe a percentage ownership of future production or revenues from specific leasehold which may be divested from the original owner of the asset (Ingersoll and Rose, 1992).

According to Ekern (1985), all interests are fractions of the total production of a well. A greater decimal interest will receive a larger share of the income from production. An overriding royalty interest is an interest usually carved out of a working interest. These are often used to compensate people associated with assembling the production package, including landmen, petroleum engineers and prospect hunters. The override terminates when the well is no longer producing. A royal interest is one paid to the mineral owner who has leased his mineral interests for production. They do not participate in the drilling costs of a well, including equipment or labour (Ekern, 1985). A working interest requires the interest owner to participate in the cost of production (Ingersoll and Rose, 1992). The working interest owner assumes some financial risk as there are costs associated with operating even if the well is unsuccessful. However, if the well is successful, the working interest owner typically receives a large percentage of the income (Ingersoll and Rose, 1992).

EMPIRICAL LITERATURE REVIEW

Over the years, studies have been carried out on royalty interest, but none have examined an empirical research of Royalty Interest Strategy Management and cost of oil and gas production in the Nigerian Niger-Delta (Obi, 2005). The earliest major attempt to explain royalty interest of oil bearing communities has been credited to Egan (1999), Banks (1987), and Rosenthal (1988) who conducted their separate studies on the Arab Gulf areas. Since then, there has been the debate for the introduction of royalty interest payment to the oil and gas producing regions in Africa. This issue did not receive any serious attention in the less developed African countries until agitations for resource control took violent tone, especially in Nigeria's Niger-Delta. Thus, Obi (2005) empirically tested the activities of oil companies and how they relate to their host communities and the Niger-Delta Development Commission (NDDC) from 2000 to 2004 when he studied the activities of the Shell Petroleum Development Company (SPDC) of Nigeria. To him, Shell was committed to working with all stakeholders in Nigeria's Niger -Delta to contribute to the sustainable development of the communities in the region in order to create peace and improve the well-being of the people. This is evidenced by the huge total expenditure on

sustainable community development programmes, including contributions to NDDC for the development of the Niger-Delta region (SPDC's contributions (Appendix 1). However, SPDC did not pay royalty interest to the Niger-Delta region.

More so, in the oil and gas industry, royalty interest refers to the ownership of a portion of the resource or revenue that is produced (Banks, 1987; Rosenthal, 1988). A company or person that owns a royalty interest does not bear any of the costs of operations needed to produce the resource, yet the person or company still owns a portion of resource of revenue produced (Ingersoll and Rose, 1992). Oil production is the operation that brings hydrocarbons to the surface and prepares them for processing (Lehman, 1989). Production begins after the well is drilled (Lohrenz, 1988). The mixture of oil, gas and water from the well is separated on the surface. The water is disposed of and the oil and gas are treated, measured, and tested (Lehman, 1989). Production operations include bringing the oil and gas to the surface, maintaining production, and purifying, measuring, and testing (Lohrenz, 1988).

Production or lifting costs are the expenses associated with bringing oil and gas from the reservoir to the surface, separating the oil from any associated gas, and treating the produced oil and gas to remove impurities such as water and hydrogen sulfide (Lehman, 1989). Those who have right of royalty interest do not pay the cost of oil production (Lohrenz, 1988). Having an oil and gas royalty interest is a safer way to get involved in energy production without having to worry about excessive costs (Ingersoll and Rose, 1992).

ASSOCIATION BETWEEN ROYALTY INTEREST MANAGEMENT STRATEGY AND COST OF OIL AND GAS PRODUCTION

This study examines Royalty Interest Management Strategy and cost of oil and gas production of the Nigeria's Niger Delta. The Niger Delta region has a population of 27 million, covering an area of 70,000 square kilometers, with 5000 communities, 50 ethnic groups and 250 dialects. The region is not only rich in oil and gas, but also well endowed with other natural resources like water, timber and other forest resources like, wild life and sharp sand. The region comprises of nine states of Nigeria, namely: Delta, Bayelsa, Ondo, Akwa Ibom, Edo, Rivers, Imo, Abia, and Cross River States. The significant feature of the Niger Delta is the general state of underdevelopment, not only by world standards but also in relation to many parts of Nigeria itself. The poverty of this region, whilst being the source of the majority of Nigeria's wealth, is the paradox that poses one of the key challenges to the nation's governance (Carter, 2007).

The people of the Niger-Delta until now have not gotten

the right of ownership and management of the oil and gas wealth in their domain (Amnesty International, 2006). According to Ingersoll and Rose (1992), getting involved in the ownership of minerals beneath the ground is the domain of oil and gas royalty interest programs or deals. These types of deals involve receiving a portion of the proceeds from extraction of natural resources like oil and gas. There are some limitations concerning such investment opportunities but there is also the potential for big payouts. Some benefits of owning oil and gas interest run the gamut and in general are less risky than owing an actual well. Owning a well introduces a host of problems including messy liability issues and also major expenditures for production (Ekern, 1985). Oil production is the operation that brings hydrocarbons to the surface and prepares them for processing (Lehman, 1989). Production begins after the well is drilled (Lohrenz, 1988). The mixture of oil, gas and water from the well is separated on the surface. The water is disposed of and the oil and gas are treated, measured, and tested (Lehman, 1989). Production operations include bringing the oil and gas to the surface, maintaining production, and purifying, measuring, and testing (Lohrenz, 1988).

However, the people of the Niger-Delta have never been given any right to own and manage the oil and gas in their land. Rather than give the Niger Delta region royalty interest, because the region contributes over 95% of the nation's wealth. This is because the laws (constitution and decrees) of the country made it compulsory for all revenues generated through petroleum and royalty to be the source of revenue for the Federal Government (Junger, 2007).

METHODOLOGY

Research design

The research design for this study is the quasi-experimental research design. The quasi-experimental (survey) research design was used because the various elements of the design are not under the control of the researcher (Baridam, 2001).

Area of Study

The area of study was oil and gas bearing companies in Rivers State. They are: Elem-Bakana, and Soku all in Degema Local Government Area of the State.

Population and sample size

The population of the study comprised all the compound heads and chiefs of the two communities. Elem-Bakana has 10 leaders, while Soku has 13. This brings the total number to 23 opinion leaders. The sample size was obtained by the use of judgmental sampling technique at the discretion of the researcher. This was because, out of the 23 respondents, only 16 were educated and it was that number that was able to attend to the administered questionnaire. Hence, this brings the response rate to 69.57%.

Instrumentation

The study used questionnaire derived from the research questions and research hypotheses as instrument for gathering data. The instrument is based on the use of the five point Likert scale on ordinal basis. And they are: (a) to a great extent 5; (b) to a considerable extent 4; (c) to a moderate extent 3; (d) to a slight extent 2; and (e) not at all 1. The instrument based on the ordinal scale was used to elicit information on the subject matter, which is "Royalty Interest Management Strategy and cost of oil and gas production in Nigerian Niger-Delta."

Validity of Instrument

The researcher used questionnaire as the instrument to get responses from the respondents contacted in the selected communities. The questionnaire was constructed based on the use of content validity to show questions covering the variables in the study. The instrument was face-validated by co-students of the post graduate class, experts in the field.

Reliability of the instrumentation

The reliability of the instrument was established using the test-retest method on 16 respondents from the selected communities, and a co-efficient of 0.7 was obtained for the instrument using the Cronbach Alpha.

Data analysis

The research hypotheses developed in this study was analyzed and tested by the use of the spearman's rank order correlation based on the application of the statistical package for social sciences (SPSS).

PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

Results

The analysis of our findings based on the research questions were raised in research question was answered thus:

Results regarding research question 1: To what extent can royalty interest enhance oil and gas production? Table 1 shows the responses gathered when it was inquired if royalty interest affects oil and gas production. Out of the 16 respondents, 8(50%) gave to a great extent response thereby indicating that royalty interest which is a form revenue paid to the land owners by the oil and gas companies can be re-invested by the owners of the resources in the oil and gas business as a venture. In addition, 6(37.5%) and 2(12.5%) of the respondents supported this view by providing to a considerable extent and to a moderate extent responses respectively. This implies that royalties are typically agreed upon as a percentage of gross or net revenues derived from the use of an asset, which in this case are the oil and gas deposits. A royalty interest is the right to collect a stream of future royalty payments, often used in the oil industry

Table 1. Effect of royalty interest on oil and gas production.

Item	Frequency	Percentage
To a great extent	8	50.0
To a considerable extent	6	37.5
To a moderate extent	2	12.5
To a slight extent	0	0
Not at all	0	0
Total	16	100.0

Source: Field Data, 2013

to describe a percentage ownership of future production or revenues from specific leasehold which may be divested from the original owner of the asset. The royalty interest can empower the Niger-Delta and make it also participate fully in the oil and gas industry.

Results regarding research question 2: To what extent can the implementation of resource control through fiscal federalism develop the Niger-Delta? Table 2 shows the responses obtained when it was inquired if resource control principle can influence the development of the Niger Delta. Out of the 16 respondents, 9(56.25%) gave to a great extent response thereby indicating that resource control, which is a principle by which owners of natural resources will be engaged in the exploration, exploitation, extraction and development of the mineral resources in their domain and then pay a specific tax to the relevant tax authorities. In addition, 7 or 43.75% of the respondents agreed with this view by giving to a considerable extent response. The implication of this is that when the people of the Niger Delta have full control of the natural resources in their region, they will use it judiciously to sustainable development in every ramification. Thus, with resource control in place, the people will not rely on the stipends from the practice of corporate social responsibility by the oil companies in their domain.

Testing of hypotheses

Relationship between royalty interest and oil and gas production

H₀₁: There is no relationship between royalty interest and oil and gas production. The aim of this hypothesis was to find out the relationship between royalty interest and oil and gas production. The result of the test show a spearman correlation coefficient ($\rho = 0.785$, $p < 0.05$) (Appendix 2). This reveals a strong and positive relationship between royalty interest and oil and gas production. The null hypothesis is thereby rejected, while the alternative hypothesis is accepted. The literature review of the present study supports this fact (Ingersoll and Rose, 1992). According to Ingersoll and Rose (1992), getting involved in the ownership of minerals beneath the

Table 2. Effect of resource control on Niger-Delta development.

Item	Frequency	Percentage
To a great extent	9	56.25
To a considerable extent	7	43.75
To a moderate extent	0	0
To a slight extent	0	0
Not at all	0	0
Total	16	100.0

Source: Field Data, 2013

ground is the domain of oil and gas royalty interest programs or deals. These types of deals involve receiving a portion of the proceeds from extraction of natural resources like oil and gas and in turn using same for developmental purposes and for the maintenance and management of the oil and gas business. Royalty interest refers to the ownership of a portion of the resource or revenue that is produced (Banks, 1987; Rosenthal, 1988). A company or person that owns a royalty interest does not bear any of the costs of operations needed to produce the resource, yet the person or company still owns a portion of resource of revenue produced (Ingersoll and Rose, 1992).

Relationship between resource control and Niger-Delta development

H₀₂: There is no relationship between implementation of resource control and Niger-Delta development. The purpose of this hypothesis was to determine the relationship between resource control and Niger Delta development. The result of the spearman correlation coefficient ($\rho = 0.756$, $p < 0.05$) (Appendix 2). This implies that there is a positive and significant relationship between resource control and Niger-Delta development. As a result, the null hypothesis was rejected, and the alternative hypothesis accepted. According to Amnesty International (2006), it was observed that oil companies in the region do not pay royalties to the people, rather what the people get are stipends from the practice of corporate social responsibility by the oil companies. As a result, the Niger-Delta people are agitating for the ownership of minerals beneath their ground in order to receive proceeds from the extraction of natural resources like oil and gas, and to fully control the resources in their land (Ingersoll and Rose, 1992). This view supports the findings from our personal interview based on the research question which says, "To what extent can the implementation of resource control through fiscal federalism develop the Niger-Delta?" Thus, the responses obtained were of the view that resource control, which is a principle by which owners of natural resources will be engaged in the exploration, exploitation, extraction and development of the mineral resources in their domain and then pay a specific tax to the relevant tax authorities can

be used to achieve sustainable development in every ramification in the Niger-Delta region.

Discussion of Findings

The main findings of this study are discussed thus:

Relationship between royalty interest and oil and gas production: A royal interest is one paid to the mineral owner who has leased his mineral interests for production. Royalty interest refers to ownership of a portion of the resource or revenue that is produced. With the payment of royalty interest, which is a source of revenue for the use of natural resources in the domain of a people, the proceeds can be used to invest in the oil and gas business in order to recoup more returns. Thus, the statistical analysis of the test gave a spearman correlation coefficient ($\rho = 0.785$). This is to indicate that there is a strong and positive relationship between royalty interest and oil and gas production.

Relationship between resource control and Niger-Delta development: resource control is a principle by which owners of natural resources are engaged in the exploration, exploitation, extraction and development of the mineral resources in their domain and then pay a specific tax to the relevant tax authorities. The Niger-Delta is an oil and gas -rich region, but it is characterized by underdevelopment. With the resource control principle, the proceeds generated from oil and gas production will be used to develop the area by the people. Hence, the statistical analysis of the test provided a spearman correlation coefficient ($\rho = 0.756$). This reveals that there is a positive and significant relationship between resource control and Niger-Delta development.

Conclusion

The findings of the study show a positive relationship between royalty interest management strategy and cost of oil and gas production. Royalty interest refers to the ownership of a portion of the resource or revenue that is produced. A company or person that owns a royalty interest does not bear any of the costs of operations needed to produce the resource, yet the person or company still owns a portion of resource of revenue produced. A royalty interest is the right to collect a stream of future royalty payments, often used in the oil industry to describe a percentage ownership of future production or revenues from specific leasehold which may be divested from the original owner of the asset. Oil and gas production starts from drilling. It involves the process of separating the mixture of oil and gas from water. Thus, we should conclude that royalty interest is a source of revenue paid to a land owner by an oil and gas company for the drilling of oil and gas from his domain, which will

make the land owner to freely allow the oil and gas company to continue the process of oil and gas production.

RECOMMENDATIONS

In the light of our findings, we suggested the following recommendations:

- Revenue right of collecting royalty interest from the oil and gas companies should be accorded the Niger-Delta region so that oil and gas production will take place in the region without disruptions.
- The Niger-Delta should be accorded the right of resource control in order to enable them develop the region in every ramification.

Conflict of Interests

The authors have not declared any conflict of interests.

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