

Impact of Environmental Cost on the Financial Performance of International Oil Companies (IOCs) in Rivers State, Nigeria

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ABSTRACT

The study investigated the impact of environmental cost on the financial performance of international oil companies (IOCs) in Rivers State, Nigeria. The study adopted an analytic descriptive research survey design; the population of the study consisted of six hundred and four (604) personnel (315 for Petroleum Development Company (SPDC) and 289 Agip) in Rivers State, Nigeria. The sample size consisted of six hundred and four (604) personnel; 315 for Petroleum Development Company (SPDC) and 289 Agip in Rivers State, Nigeria. A purposive sampling technique was adopted. The research instrument is a self-structured questionnaire titled: “Environmental Cost Financial Performance Questionnaire (ECFPQ)” with 20 questionnaire items on a modified validated four-point rating scales response. The Cronbach Alpha value of 0.82 was also obtained. Data obtained was analyzed using the mean (\bar{X}) and Z-test. Findings showed that both staff from Shell and Agip agreed that the environmental cost (pollution cost and compensation cost) impact on financial performance of international oil companies (IOCs) in Rivers State, Nigeria. Therefore, it was concluded that there is the need for the oil giants to guide their operation against all kinds of pollution and where could not, planning for compensation cost should be in place to avoid the wrath of the host community irrespective of the impact of the performance cost knowing that the host community can liquidate the outfit. Whereas, it was recommended that the oil companies should guide their operations to limit environmental hazard to avoid costs that will affect their financial performance and since no operations is absolute from environmental pollutions, companies should always budget for such cost for smooth operations. Also, when pollution occur, Petroleum Development Company (SPDC) and Agip should not operate divide and rule over compensation cost in the affected host communities in Rivers State because of it avert effect on the youth and compensation cost should be benefitted by the all and sundry in the communities not rest with the leaders alone to avoid conflict.

Keywords: Environmental Cost; Financial Performance; Pollution Cost and Compensation Cost

INTRODUCTION

Historically the Nigerian Oil resource exploration dates back to 1908 with the pioneer prospecting activities of the Nigerian Bitumen Company (NBC) in the south western Nigeria; this ended abruptly following the outbreak of the World War 1 in 1914 (Ite & Ibok, 2013). In the early 1900s, Nigeria was still a British colony and Britain often operates a policy of exclusive exploration rights for British companies. However, the colonial government allowed the Nigerian Bitumen Company (NBC) exploration rights in Nigeria due to lack of a competent British Oil company to undertake exploration operations and subsequently, this led to the merger between Royal Dutch Shell and William Knox D’Arcy in 1930. The British colonial government subsequently showed support and/or commitment towards the joint venture between Royal Dutch Shell and William Knox D’Arcy (Shell D’Arcy) with the approval of a loan of £25,000 for NBC (Umejesi & Akpan, 2013).

In 1939, Shell D’Arcy (a consortium of Royal Dutch Shell and Iranian Oil company by William Knox D’Arcy later British Petroleum) was granted a sole concessionary right to explore petroleum hydrocarbons over the whole country and prospecting later began in 1938 (Ite, Ufok, Ibok & Isaac,

2016). Although the World War II (1939-1945) did disrupt the initial oil exploration activities of Shell D'Arcy later (British Petroleum), exploration operations in the Niger delta region resumed in 1946 and crude oil reserves were discovered in commercial quantities in 1956 near Oloibiri community in Ogbia local government Area in Bayelsa State. In February 1958, Shell D'Arcy (now Shell British Petroleum) with an average of 6000 barrels of crude oil per day (BOPD) began exporting crude oil produced from Oloibiri and Afam oil fields in Port Harcourt (Ite et al 2016). The revenue from export of oil began to play vital role in shaping the economy and Rivers State/Nigeria's economic development began to be dependent on fluctuations in the international oil price. Due to the contributions of crude oil towards economic developments, the sole concession rights over the whole country earlier granted to Shell-British Petroleum was reviewed in 1959 and exclusive rights were extended to other multinational oil companies which encouraged accelerated exploration (Adelemo & Baba, 2009, Baumberg, 2012).

Prior to the federation of Nigeria being granted full independence on October 1 1960, non-British oil companies such as Mobil Exploration Nigeria (later incorporated as Mobil Producing Nigeria on 6th June 1969) was granted oil exploration license in 1955, Tenneco in 1960, Gulf Oil and later Chevron in 1961, Agip in 1962 and Elf in 1962. Prior to the discovery of oil, Rivers State/Nigeria (like any other African countries) strongly relied on agricultural exports to other countries to supply their economy. Many Rivers/Nigerian thought the developers were for Palm oil (Deegan, 2012). The increased dominance of the Nigerian economy by oil sector following independence prompted the Federal Government to review the sole concession policy and exclusive exploration rights was issued to several other multinational oil companies (Ite et al 2016). Despite the adverse impact of the Nigerian civil War (1967- 1970) petroleum resources export were the main driver for infrastructural development in the country that subsequently led to the creation of Department of Petroleum Resources (DPR) Inspectorate in 1970. In order for the country to secure an efficient, economic and regular supply of petroleum resources to consumers, Nigeria joined the Organization of Petroleum Exporting Countries (OPEC) in 1971. Nigeria is Africa's largest oil producer since been a member of OPEC.

Over the past six decades most of these multinational oil companies have recorded considerable successes in petroleum exploration, production and development in about 159 oil fields and over 1481 oil wells located within the Rivers State/Nigeria's Niger Delta region (FEPA, 1988, Oku, 2014). Presently, there are over 5 Multinationals oil companies (MNOCs) which are involved in oil and gas exploration and production in the Niger Delta region (Poindexter, Meraz and Weiss 2016). Although petroleum exploration and production has contributed towards the nation's economic development, over the past sixty (60) years, several petroleum related problems such as environmental pollution, degradation, human health hazards, socio-cultural and socio-economic problems have been experienced in the Rivers State/Niger Delta region including joint venture cash calls such as budget delays, late release of fund from the ministry of energy and natural resources and also the problem of monitoring and implementation (Anejionu, Ahianmmunnah & Nriezedi, 2015).

In 2015, Hunter established that oil pollution from spills, oil wells blow-outs, oil blast discharges and improper disposal of drilling mud from petroleum prospecting and other production waste have resulted in environmental degradation problems such as the loss of aesthetic values of natural beaches due to unsightly oil slicks, damage to marine wildlife, modification of the ecosystem through species elimination and the delay in biota (fauna and flora) succession and decrease in fishery resources. It is as a result of this that many companies and organisation are now solidifying their environmental approach and developing business activities that take the environment into consideration as environmental conservation efforts continue to increase (Ezeagba, John-Akamelu & Umeoduagu (2017). Efforts made in environmental accounting comprise a part of these environmental conscious business activities. Environmental cost are not only used by companies or organisation internally, but also made public through disclosure in environmental reports.

Environmental Cost

Environment as the natural world in which people, animals, and plants live, every entity in an environment interacts with its environment, causing its influence on this environment; and in turn, gets influenced by its environment. Okafor (2018) is of the view that humans beings as part of the

biotic components of the environment, eventually gets affected by their natural environments and in turn cause an impact on the environment. It is from the environment surrounding us that we get food to eat, water to drink, air to breath and all necessities of our daily lives. Ifeoma (2015) affirm that the environment around us therefore constitutes a “life support system”. The concern for environment is an expression of a fundamental change in human perception of nature, natural resources and wildlife on our planet. This traditional concepts, that natural resources are abundant for man to use or abuse, has been responsible for massive degeneration of nature, natural systems, environment and wildlife. Environmental costs consist of environmental measures and environmental losses. They include clean-up costs, costs of recycling materials or conserving energy, closure costs, capital expenditure and development expenditure (Iferueze, Lyndon & Bingilar, 2013). These costs are incurred in preventing, reducing or repairing damage to the environment and conserving resources. However, environmental losses are costs, which bring no benefits to the business. Such as, fines, penalties, compensation, and disposal losses relating to assets which have to be scrapped or abandoned because they damage the environment (Hunter, 2015). Environmental costs are the environmental damage, an entity costs to the environment and its users as a result of its operations. There is also the general concern that environmental cost reduces operating flexibility, slow productivity of companies. According to Ezeagba et al. (2017), Environmental costs are costs incurred by companies in order to protect the environment, prevent environmental problems and minimize damages to the environment. They are those costs incurred in compliance with community development, waste management, employee health and safety, or prevention of breach of environmental laws, regulations and company policies (Ifurueze et al 2013 & Ezeagba et al 2017). However, the true environmental costs to a firm can be far broader, including costs of resources both those directly related to production and those involved in general business operations, waste treatment and disposal costs, the costs of poor environmental reputation and the cost of paying an environmental risk premium. Ite & Ibok (2013) referred environmental cost as impacts incurred by society, an organization or individual resulting from entities that affect environmental quality. They are any costs, direct or less tangible, with short or long-term financial consequences for the firm. These include costs for handling treatment and disposal of waste and emissions remediation and compensation costs related to environmental damages and any control regulatory compliance costs, such as equipment depreciation, operating materials, water and energy, internal personnel, external services, fees, taxes and permits, fines, insurances, etc, (Bassey & Okon, 2013).

Classification of Environmental Cost

According to Ifurueze et al (2013) & Ezeagba et al (2017), the following are the classification of environmental cost;

- 1. Prevention Cost:** This include evaluating and selecting supplies, evaluating and selecting pollution control equipment, designing processes, designing products, carrying out environmental studies, auditing environmental risk, developing environmental management systems, recycling products securing ISO 0400 certification.
- 2. Detection Cost:** Detection activities which include auditing environment activities, inspecting product, and processes, developing environment performance measures, for testing for contamination, verifying supplier, environmental performance, measuring contamination levels.
- 3. Internal Failure Cost:** Internal failure activities include operating pollution control equipment; treating and disposing of toxic waste, maintaining pollution equipment, licensing facilities for producing contaminants, recycle scraps.

Financial Performance

The word “performance” is derived from the word “parfourmen”, which means “to do”, “to carry out” or “to render”. It refers to the act of performing, execution, accomplishment and fulfillment etc (Neely, 2009). In broader sense, performance refers to the accomplishment of a given task measured against preset standards of accuracy, completeness, cost and speech. In other words, it refers to the degree to which an achievement is being or has been accomplished. According to Jenatabadi (2014), the word performance is a general term applied to a part or to all the conducts of activities of an

organisation over a period of time often with reference to past or projected cost efficiency, management responsibility or accountability or the like. Performance is used to indicate firm's success, conditions and compliance; it refers to the efforts extended to achieve the target efficiently and effectively. The achievements of targets involve the integrated use of human, financial and natural resources.

Financial performance according to Kim & Kim (2014) therefore refers to the act of performing financial activity. In broader sense, financial performance refers to the degree to which financial objectives is being or has been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firms over all financial health over a given period of time and can also be used to compare and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

Financial performance is a scientific evaluation of profitability and financial strength of any business concern. Ismail & Jenatabadi (2014) noted that financial statement analysis attempt to unveil the meaning and significance of the items composed on the profit and loss account and balance sheet. He pointed out that they assist management in formation of sound operating and financial policies.

Pollution Cost

Environment may be considered as our surrounding which includes everything around us i.e. the living and non-living. The non-living is known as abiotic environment, it consist of air, water and soil (land) while the living environment is known as biotic environment which consist of all the living organism (plants, animals microorganisms) that we regularly come in contact with (Emma, 2018). Man lives in two worlds, a natural world of the native environment and a built world crated by him (man). The built world an outcome of the advances made in science and technology is associated with environmental pollution. Environmental pollution is a global phenomenon and therefore a matter of concern for everyone. Environmental pollution is the contamination of the physical and biological components of the earth atmosphere system to such an extent that normal environmental processes are adversely affected. It is also seen as any undesirable change in the physical chemical or biological properties of our surroundings environment that may have harmful effect on plants, animal, human and other life. According to Nnagu, Udofia, Ekong & Ebuk (2016), environmental pollution is defined as the contamination of our air, land and water by individuals, agricultural land and human waste. Pollution is defined as the direct or indirect alteration of the physical, thermal biological or radioactive properties of any part of the environment in such a way as to create a hazard or potential hazard to health safety or welfare of any living species.

Federal Environmental Protection Agency (FEPA 1998) defined pollution as referring generally to the presence of matters or energy whose nature, location or quantity produces undeserved environmental effect. Under the clean water Act, for examples, the term is defined as the man-made or man induced alteration of the physical, biological integrity of water. This phenomenon occurs whenever potentially, harmful substances are released into the environment. Pollution on the whole is caused principally by human activities though it can also be a natural process. It is usually classified according to the receiving agents of air as emission, water as affluent and land as dump and disposal (Uwem & Ennobong, 2017).

Nnagu et al (2016) reaffirmed that there are several types of pollution, these include air, land and water pollution with emphasis on gas flaring and oil spillage. Though environmental pollution is not restricted to oil spillage and gas flaring the research will be restricted to oil spillage and gas flaring which are part of the direct consequence of the activities of the international oil companies and the oil industry in Nigeria. Put succinctly, environment pollution takes places when the environment cannot process and neutralize harmful by-products of human activities (for example poisonous gas emission) in due course without any structural or functional damage to its system (Baumberg, 2012).

Compensation Cost

The petroleum production activities in Nigeria which started with the discovery of crude oil, a complex mixture of fluid, hydrocarbon, sulphur, oxygen and nitrogen was first found in commercial quantity by the Shell group in Oloibiri, Bayelsa State, has dramatically changed the pattern of life physically, mentally economically, socially and politically. The old order of piling "pyramid of groundnut, hems of cocoa and mountain of palm kernel" has been replaced by computerized press button delivery of crude oil now refined distributed for use and exported for the much need and

foreign earnings (Ukpong, 2004). However, the exploration, exploitation and distribution of this product have attendant adverse effect on the environment.

The frequency of oil spills in the Niger Delta region of Nigeria has made her a centre of attention globally. Basse & Okon (2013) noted that mostly the oil spills in the Niger Delta are yet to be cleaned-up, thus subjecting the region to serious environmental pollution especially the fragile natural environment from where many of the residents derive their means of livelihood. The impacts of oil spills on the people of the Niger Delta cannot be overemphasized. These include loss of farmland, aquatic lives and disorder of the ecosystem and pollution of drinking water, desecration of sacred places, health hazard and loss of lives. According to Aregbe (2017), oil spills has both short and long term effect on people. The people of the Niger Delta region have continued to pay the price of development of the nation with their lives, health, cultures, environment and other oceans of livelihoods. Many of the residents of the region have been displaced from their native land as a result of poverty arising from unproductive land as a result of oil polluted environment (Adelamo & Baba, 2009).

As a remedy to this situation, the oil spill victims usually seek for compensation for their polluted land and loss of livelihood. Compensation ordinary refers to repaying someone for a loss, legal reparation, due leases for improvements affected on a property, workmen, for accidents suffered in the course of employment. Compensation is also due a person whose property or person is injured by negligent conduct of another or the property is taken by the government or its agency for public utility. It can be argued that compensation is the reparation for loss or injury; it is paid for damages land and other properties (Uchegbu, 2012). In the present context, compensation is defined as the payment for loss or injury or damage to the oil bearing environment due to oil pollution/spillage.

Need for Compensation

Whenever environmental pollution occurs, causes damage to the resources. The extent of damage from oil spill will depend on certain factor. As construed by Dick, 2012 such factors include the type of oil, the time of the year when the spill occurs, the weather condition the ecosystem impacted. Opukri & Ibaba (2008) observed in the Niger Delta that there is a preponderance of swampland and forest vegetation. Damages are normally suffered by:

- i. Land, comprising economic crops /trees.
- ii. Fisheries including natural and man-made artisanal and planned typed, which consist of fresh and blackish water ponds, creeks, streams and swamps containing fish of various species and aquatic animals.
- iii. Forestry (timber)
- iv. Non-Timber Forest Product (NTFPs)
- v. Wildlife (Game reserves).

Instances of Oil Spill and Its Compensation Cost By IOCs in Nigeria and Other Countries

There have been several cases of oil spills the world over and in Nigeria in particular. These oil spills have attracted large sum of compensation varying from millions to trillions of dollars incurred by the international oil companies.

Given below are some cases of oil spills and its associated cost.

S/N	Year of Spill	Oil company responsible	Location of oil spill	Compensation cost incurred	Valuation Company Used
1.	1970	SPDC	BOMU II blow-out in Ogoni	N4.621 million	
2.	1979	NAOC	NAOC Oshika oil spill	N178,200,000	
3.	1980	NADC	Oyakama oil spillage	N753,156,000	
4.	2012	CHEVRON	NORTH APOI FUNIWA IA Gas blow-out Brass, Southern Ijaw & Ekeremoh Shorelines Bayelsa State	N1,086,176,000	Onwuchuluba & Associate, Estate Surveyors and Valuers & Kenneth Oporum & Co. Estate Surveyors and Valuers
5.	2013	SPDC	TEKURU-WATER SIDE, Bodo City, OGONI Rivers State	N38,992,603,630	Onwuchuluba & Associate, Estate Surveyors & Valuers.
6.	2018	SPDC	APOI-AREA in Southern Ijaw LGA, Bayelsa State	N67,040,000.000	Akujuru & Associates and Onwuchuluba & Associate, Estate Surveyors and Valuers

Source: Onwuchuluba & Associates Estate Surveyors and Valuers: Valuation Report of Damages to Oil Spill Sites, 2019.

Statement of the Problem

Over the years petroleum exploration and production activities have usually been associated with environmental pollution. Environmental pollution is the discharge of materials in physical state that is dangerous to the environment or human health. This alteration has resulted in damages to human health, atmosphere, arable land, marine and the ecosystems in the oil producing communities in Rivers State, Nigeria. The major sources of environmental pollution in Nigeria include oil spillage, pipeline explosion, gas flaring, and venting, improper disposal of large volumes of petroleum-derived hazardous hydrocarbons waste streams (Ite et al 2016). Others include equipment failure, oil spills associated with ageing facilities, sabotage, oil well blow out and oil blast discharges. When this environmental pollution occurs, the oil bearing communities in Rivers State are mainly disadvantaged and as a result demand for compensation and remediation of their polluted environment from the International Oil Companies. (IOCs).

The cost incurred by the international oil companies on environmental costs (pollution and compensation) is quiet huge and have a negative impact on the profit of the oil companies, and there is need for a closer look in order to reduce these costs so as to boost profitability performance.

The study therefore fills this research gap and thus constitutes an extension of the exploratory investigation to determine the impact of environmental cost (pollution and compensation cost) on financial performance of international oil companies in Rivers State, Nigeria.

Purpose and Objectives of the Study

The purpose of the study is to examine the environmental cost impact on the financial performance of international oil companies (IOCs) in Rivers State, Nigeria. While specifically and contextually the objectives are;

- i. To investigate the impact of pollution cost on financial performance of IOCs in Rivers State, Nigeria.
- ii. To ascertain the impact of compensation cost on financial performance of IOCs in Rivers State, Nigeria.

Research Questions

In line with the study objectives, the following research questions will be addressed as follows;

1. In what ways does pollution cost impact on the financial performance of IOCs in Rivers State, Nigeria?
2. In what ways does compensation cost impact on the financial performance of IOCs in Rivers State, Nigeria?

Hypotheses

The following hypotheses will guide the study in line with the objectives.

1. There is no significant difference between the means scores of Shell and Agip on the impact of pollution cost on financial performance of IOCs in Rivers State, Nigeria.
2. There is no significant difference between the means scores of Shell and Agip on the impact of compensation cost on financial performance of IOCs in Rivers State, Nigeria.

METHODOLOGY

This study adopted an analytic descriptive research survey design; the population of the study consisted of six hundred and four (604) personnel (315 for Petroleum Development Company (SPDC) and 289 Agip) in Rivers State, Nigeria. The sample size consisted of six hundred and four (604) personnel; 315 for Petroleum Development Company (SPDC) and 289 Agip in Rivers State, Nigeria. A purposive sampling technique was adopted. The research instrument is a self-structured questionnaire titled: “Environmental Cost Financial Performance Questionnaire (ECFPQ)” with 20 questionnaire items on a modified validated four-point rating scales response. The Cronbach Alpha value of 0.82 was also obtained. Data obtained was analyzed using the mean (\bar{X}) and Z-test. Specifically, the mean (\bar{X}) was used to answer the research questions while the Z-test was used to test hypotheses at 0.05 level of significance.

Research Question 1

In what ways does pollution cost impact on the financial performance of IOCs in Rivers State, Nigeria?

Table 1: Mean for Impact of Pollution Cost on Financial Performance.

S/N	Statements	Shell (N=315)			Agip (N=289)		
		M	S.D.	RMK	M	S.D.	RMK
1	Pollution of the environment by International Oil companies (IOCs) has cost implications.	3.09	0.91	AG	3.45	0.59	AG
2	Contamination of Air and Water quality by IOCs attract huge cost.	3.09	0.91	AG	3.37	0.55	AG
3	Solid and Toxic waste release into the environment have cost implications on the IOCs financial performance.	3.12	0.91	AG	3.47	0.58	AG
4	Continued Gas flaring has huge financial impacts which affect the IOCs financial performance.	3.13	0.89	AG	3.22	0.70	AG
5	Litigations by Host communities against pollution caused by IOCs have negative impact on the IOCs financial performance.	1.70	0.79	DA	1.56	0.63	DA
6	Cost incurred on pollution influence IOCs financial strength negatively.	3.11	0.90	AG	3.19	0.75	AG
7	Gas Flaring is an integral part of the Exploration and Production of Crude Oil which attracts huge financial cost.	3.07	0.90	AG	3.37	0.57	AG
8	Cost implication of Health Hazards caused by pollution affects financial performance of IOCs.	3.12	0.86	AG	3.53	0.58	AG
9	Oil spill (pollution) is on the increase with increasing cost implication on the financial performance of IOCs.	3.09	0.92	AG	3.41	0.59	AG
10	The damages to the ecosystem caused by pollution have huge financial impact on IOCs financial performance.	1.40	0.49	DA	1.48	0.51	DA
	Grand Mean	2.79	0.85	AG	3.01	0.60	AG

Field data 2020 (DA=Disagree; AG=Agree).

Result from Table 1 shows the mean responses of staff from Shell and Agip regarding the impact of pollution cost on the financial performance of IOCs in Rivers State Nigeria. As shown, the grand mean response for staff from Shell is 2.79 while that of Agip staff is 3.01. This result shows that staff from the both companies agreed that pollution cost impact on their financial performance.

Research Question 2

In what ways does compensation cost impact on the financial performance of IOCs in Rivers State, Nigeria?

Table 2: Mean for Impact of Compensation Cost on Financial Performance.

S/N	Statements	Shell (N=315)			Agip (N=289)		
		M	S.D.	RMK	M	S.D.	RMK
11	Oil pollution often results in compensation cost by IOCs to their host communities.	3.52	0.50	AG	3.52	0.50	AG
12	Compensation cost for loss of Aquatic lives due oil spills impacts on IOCs financial performance.	3.65	0.48	AG	3.47	0.50	AG
13	Compensation cost incurred on loss of Economic tress due to oil spills affect IOCs financial performance.	3.67	0.47	AG	3.51	0.50	AG
14	Compensation expenses paid for damages to the ecosystem affects IOCs financial performance.	1.57	0.50	DA	1.52	0.50	DA
15	Compensation expenses on oil impacted sites affect IOCs financial performance.	3.53	0.50	AG	3.30	0.46	AG
16	Compensation cost incurred on polluted streams and rivers affect IOCs financial performance.	3.43	0.50	AG	3.33	0.73	AG
17	Construction of houses for displaced indigenes of host communities due oil spill attracts huge cost which affects the IOCs financial performance.	3.49	0.50	AG	3.44	0.50	AG
18	Compensation cost incurred for the substance of the members of the host communities for lost of their means of livelihood affects the IOCs financial performance.	3.69	0.46	AG	3.44	0.50	AG
19	Medical expenses incurred by IOCs on victims of oil spill affects their financial performance.	1.61	0.49	DA	1.73	0.53	DA
20	Financial supports to victims of oil spill impact on IOCs financial performance.	3.61	0.49	AG	3.29	0.45	AG
	Grand Mean	3.18	0.49	AG	3.06	0.52	AG

Field data 2020 (DA=Disagree; AG=Agree).

Result from Table 2 shows the mean responses of staff from Shell and Agip regarding the impact of compensation cost on the financial performance of IOCs in southern Nigeria. As shown, the grand mean response for staff from Shell is 3.18 while that of Agip staff is 3.06. This result shows that staff from the both companies agreed that compensation cost impact on their financial performance.

Hypothesis 1

There is no significant difference between the mean scores of Shell and Agip on the impact of pollution cost on financial performance of IOCs in Rivers State, Nigeria.

Table 3: Z-Test for Impact of Pollution Cost on Financial Performance.

Groups	N	M	S.D.	Z-cal	Z-crit	Decision
Shell	315	2.79	0.85	-3.70	1.96	Rejected
Agip	289	3.01	0.60			

Field data 2020

Result from Table 3 shows the Z-test analysis for the hypothesis, there is no significant difference between the mean scores of Shell and Agip on the impact of pollution cost on financial performance of IOCs in southern Nigeria. The result shows a calculated Z-test value of -3.70 (negative sign not important). The critical value of Z is 1.96. Since the calculated value of Z is greater than the critical value of Z, the hypothesis is rejected. This implies that there was a significant difference between the mean scores of Shell and Agip staff on the impact of pollution cost on financial performance of IOCs in southern Nigeria. This significant difference is however due to level of agreement between the two groups of respondents and not in terms of agreement or disagreement because the grand mean scores show that both staff from Shell and Agip agreed that pollution cost impact on financial performance.

Hypothesis 2

There is no significant difference between the means scores of Shell and Agip on the impact of compensation cost on financial performance of IOCs in Rivers State, Nigeria.

Table 4: Z-Test for Impact of Compensation Cost on Financial Performance

Groups	N	M	S.D.	Z-cal	Z-crit	Decision
Shell	315	3.18	0.49	2.91	1.96	Rejected
Agip	289	3.06	0.52			

Field data 2020

Result from Table 4 shows the Z-test analysis for the hypothesis, there is no significant difference between the mean scores of Shell and Agip on the impact of compensation cost on financial performance of IOCs in southern Nigeria. The result shows a calculated Z-test value of 2.91. The critical value of Z is 1.96. Since the calculated value of Z is greater than the critical value of Z, the hypothesis is rejected. This implies that there was a significant difference between the mean scores of Shell and Agip staff on the impact of compensation cost on financial performance of IOCs in southern Nigeria. This significant difference is however due to level of agreement between the two groups of respondents and not in terms of agreement or disagreement because the grand mean scores show that both staff from Shell and Agip agreed compensation cost impact on financial performance.

DISCUSSION OF FINDINGS

In research question 1, it was perceived that pollution cost impact on the financial performance of IOCs in Rivers State, Nigeria. Besides, hypothesis 1 reveals that there is no significant difference between the mean scores of Shell and Agip on the impact of pollution cost on financial performance of IOCs in Rivers State, Nigeria. The result shows that pollution of the environment by International Oil companies (IOCs) have cost implications; contamination of air and water quality by IOCs attract huge cost. Oku (2014) posited that solid and toxic waste release into the environment have cost implications on the IOCs financial performance; continued gas flaring have huge financial impact which affect the IOCs financial performance; cost incurred on pollution influence IOCs financial strength negatively; gas flaring is an integral part of the exploration and production of crude oil which attracts huge financial cost (Umejes & Akpan (2013); cost implication of health hazards caused by pollution affects financial performance of IOCs; oil spill (pollution) is on the increase with increasing cost implication on the financial performance of IOCs. On the other hand, litigations by host communities against pollution caused by IOCs have negative impact on the IOCs financial performance and the damages to the ecosystem caused by pollution have huge financial impact on IOCs financial performance (Oku, 2014).

In research question 1, it was perceived that compensation cost impact on the financial performance of IOCs in Rivers State, Nigeria. Besides, hypothesis 1 reveals that there is no significant difference between the means scores of Shell and Agip on the impact of compensation cost on financial performance of IOCs in Rivers State, Nigeria. The result further shows that oil pollution often results in compensation cost by IOCs to their host communities; compensation cost for loss of aquatic lives due oil spills impacts on IOCs financial performance; compensation cost incurred on loss of economic tress due to oil spills affect IOCs financial performance; compensation expenses on oil impacted sites affect IOCs financial performance; compensation cost incurred on polluted streams and rivers affect IOCs financial performance; construction of houses for displaced indigenes of host communities due oil spill attracts huge cost which affects the IOCs financial performance. Ukpong (2004) is of the view

that compensation cost incurred for the substance of the members of the host communities for lost of their means of livelihood affects the IOCs financial performance and financial supports to victims of oil spill impact on IOCs financial performance. On the contrary, compensation expenses paid for damages to the ecosystem affects IOCs financial performance and medical expenses incurred by IOCs on victims of oil spill affects their financial performance (Neely, 2009).

CONCLUSION

Over the years, technological advances in oil exploration activities have resulted in the discovery of more oil and gas reserves in the Rivers State/Niger Delta region and increased production rate have made Nigeria to be ranked among the major oil producing country around the world. Therefore, there is the need for the oil giants to guide their operation against all kinds of pollution and where could not, planning for compensation cost should be in place to avoid the wrath of the host community irrespective of the impact of the performance cost knowing that the host community can liquidate the outfit.

RECOMMENDATIONS

Based on the findings of the study, it was recommended that;

1. The oil companies should guide their operations to limit environmental hazard to avoid costs that will affect their financial performance
2. Since no operations is absolute from environmental pollutions, companies should always budget for such cost for smooth operations
3. Also, when pollution occur, Petroleum Development Company (SPDC) and Agip should not operate divide and rule over compensation cost in the affected host communities in Rivers State because of it avert effect on the youth
4. And compensation cost should be benefitted by the all and sundry in the communities not rest with the leaders alone to avoid conflict

REFERENCES

- Adelamo, I. A. & Baba, J. M. (2009). *Nigeria Giant in the Tropics: A Compendium*. Lagos Nigeria. Gabumo Publishing Company.
- Anejionu, O. C. D., Ahianmmuna, P. A. N. & Nri-ezedi, C. J. (2015). ‘‘Hydrocarbon Pollution in the Niger Delta: Geographies of Impacts and Appraisal of Lapses in Extant Legal Framework.’’ *Journal of Resources Policy*, 45, 65-77.
- Aregbe, A. G. (2017). Natural Gas Flaring at Mature Solutions. *World Journal of Engineering and Technology*, 5(51) 90-96.
- Bassey, S. & Okon, E. (2013). *The Impact of Environmental Accounting and Reporting on Organizational Performance of Selected Oil and Gas Companies in Niger Delta Region of Nigeria*.
- Baumberg, J. (2012). *British Petroleum and Global Oil 1959-1975. The Challenge of Nationalism*, Cambridge U. K Cambridge University press.
- Deegan, C. (2013). The Accountant will have a central role in saving the Planet Really? A reflection on Green Accounting eyeshades twenty years later. *Critical Perspectives on Accounting*, Vol. 24.
- Emma, A. E. (2018). Gas Flaring Industry an over flow Petroleum And Coal. *American Journal of Environmental Protection* 54 (5) 53-57
- Ezeagba, C. E., John-Akamelu, C. R. & Umeoduagu, C. (2017). Environmental Accounting Disclosures and Financial Performance: A study of selected Food and Beverage Companies in Nigeria. *International Journal of Academic Research in Business and Social Sciences*. Volume 7 (9)
- Federal Environmental Protection Agency (FEPA) (1988). *Federal Environmental Protection Agency Decree No. 58 Lagos, Nigeria*.
- Hunter, I. (2015). *Regulation of the Upstream Sector. A Comparative Study of Leasing and Concession System*. Edinburg Elger Publishing.

- Ifeoma, B. (2015). Evaluation of Companies Environmental Practices in Nigeria Retrieved Jan; 2020 from <http://www.researchgate.net>
- Iferueze, M. S. K, Lyndon, M. E, & Bingilar, P. F. (2013). The Impact of Environmental Cost on Corporate Performance. A Study of Oil Companies in Niger Delta states of Nigeria. *Journal of Accounting and Business Management*, 12 (4): 238-401.
- Ismail, N. A. & Jenatabadi, H. S. (2014). The influence of firm age on the Relationship of Airline Performance, Economic Situation and Internal Operation. *Transportation Research Part A: Journal on Policy and Practice* 9(6) 11-15
- Ite, A. N. & Ibok, U. D. (2013). Petroleum Exploration and Production, Past and Present Environmental Issues in the Nigeria's Niger Delta. *American Journal of Environmental Protection* 21. (10) 23-27
- Ite, A. E., Ufot, U. F., Ibok, U. J., & Isaac, O. I (2016). Petroleum Industry in Nigerian Environmental Issues, National Environmental Legislation and Implementation of International Law. *American Journal of Environmental Protection*. 4(1) 21-37
- Jenatabadi, H. S. (2014). Situation of Innovation in the Linkage between Culture and Performance: A Mediation Analysis of Asian Food Production Industry; Contemporary in Governing Schools. *International Journal of Organizational Effectiveness Management Science* 4(10) 79-82
- Kim, M. & Kim, Y. (2014). Corporate Social Responsibility and Stakeholders' Value of Restaurant Firms. *International Journal of Hospital management*, 3(9) 40-41.
- Neely, A. (2009). The Performance Measurement Revolution why now and what next? *International Journal of Operation and Production Management*.
- Nnagu, J., Udofia, E. A., Ekong, I. & Ebuk, G. (2016). Health not Association with Oil Pollution the Niger Delta, Nigeria. *International Journal of Environmental Research*. NNPC (2016). Production available at <http://www.nnpc.group.com/nnpcbusiness/upstreamtoil.aspx>. Retrieved on 20 November, 2019.
- Okafor, T. G. (2018). Environmental Cost Accounting and Reporting on Financial Reports Performance: A survey of selected quoted Nigerian oil companies. *International Journal of Finance and Accounting* 7 (1): 1-6
- Oku, H. B. (2014). Bioremediation of Soil Impacted by Bonny Light Crude Oil using Aftnurtion Matibios Cannalis and Inorganic Fertilizer (NPR Isasis). Ph.d Thesis, Department of Geography and Developmental studies, University of Port Harcourt.
- Onwuchuluba & Associates Estate Surveyors and Valuers (2019) Valuation Report of Damages to Oil Spill Sites.
- Opukri, A. & Ibaba, R. (2008). Oil Induced Environmental Degradation And Internal Population Displacement in Nigerian Niger Delta. *Journal of sustainable development in Africa*, 10(6) 173-193.
- Uchegbu, N. S. (2012). Environmental Management and Protection. Spafite Publishers II Idodo Street, Achern Layout Enugu State.
- Ukpong, S. J. (2004). Global and Nigerian Environmental Problems Analysis. SIRF Publisher. Calabar.
- Umejisi, K. & Akpan, W. (2013): Oil Exploration and Local Opposition in Colonial Nigeria, understanding the Roots of Contemporary State Community. *A South African Journal Review of Sociology*, 8(5) 44-51
- Uwem, U. & Ennobong B. A. (2017). Gas Flaring in Nigeria; Problems and Prospects. *Global Journal of Public and Law Research*, 5(1), 34-38