

**Audit- Assurance Service and Voluntary Environmental Disclosure in  
The Nigerian Oil Sector**

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**Abstract**

Oil business activities have ecological implications which elicit protection and allied intervention from statutory agencies. This necessitated the Federal Environment Protection Agency (FEPA). With this, the economies of resource conservation and environmental management hold sway, yet corporate disclosure of environmental liability remains largely voluntary. This study anchors on three hypotheses to examine the difference corporate audit reports of voluntary environmental disclosures in the Nigerian oil sector. The results favour the alternate hypotheses, affirming audit efficacy. Recommendations, requires the ideals of audit-seasoned assurance service (ASAS). Ultimately, the ensuing high quality financial/non-financial disclosures would bring about greater mutual benefits in the economy.

**Keywords:** Audit report, Assurance service, Environmental disclosure, Nigerian oil sector

**Introduction**

In measuring the quality of environmental disclosures, the Global Reporting Initiative (GRI) Guideline (2000) underscores transparency, inclusiveness, audit-ability, completeness, relevance, sustainability context, accuracy; neutrality, comparability, clarity and timeliness. To this end, assurance service is employed to 'ensure that information on environmental liability disclosed by companies is of good quality (Hay & Davis. 2004; Uberoi, 2003). According to Ricchiute (2001), assurance service is a three-party contract in which an assurer reports on the quality of information. For finance-related assurance service, independent audit is required. Audit of corporate financial records helps identify possible errors in posting and ensures that generally accepted accounting principles are followed. However, Elliot and Pollais (1997) contend that assurance service is not to correct existing issues but simply to confirm or deny that present circumstances aptly captured. Telberg (1996) categorizes assurance service into two: attestation service and non-attestation service. Attestation service relates to a report that goes to a third-party, and generally involves audit of financial statements, review of financial statement and assessment of internal control systems. Non-attestation service seeks to either improve on information originating from various parties or create information for interested parties. Fundamentally, according to GRI Guidelines (2010), assurance service should:

1. Provide strong signal about a company commitment to corporate responsibility;
2. Ensure transparency and validity of the company's information to the public;
3. Allow reinforcement of company internal reporting processes and procedures; and
4. Increase stakeholders' confidence in corporate performance reports.

As corporate operations grow, the disclosure of environmental information becomes a value-added perspective of corporate financial reporting. According to Degan & Gordon (1996), firms have discretion in determining the volume and focus of environmental disclosure. It is, however, contended that the subjectivity which goes with this discretion tends to reduce the quality of environmental disclosures by firms. Thus, oil firms seeking to promote transparency, inclusiveness, relevance, accuracy, clarity and timeliness of environmental disclosures are expected to engage assurance service. This is recognized to be of great advantage to corporate reporting, as information flows to stakeholders, particularly investors, creditors, management, employees, customers, and governmental bodies. On account of these realities, the pertinent research hypotheses for this study are:

Ho<sub>1</sub> Audit reports make no significant difference in the relevance of voluntary environmental disclosures;

Ho<sub>2</sub>: Audit reports make no significant difference in the timeliness of voluntary environmental disclosures; and

Ho<sub>3</sub>: Audit reports make no significant difference in the accuracy of voluntary environmental disclosures.

Related literature provides veritable insights on the nature, dimensions, elements and process of assurance service.

### **Classification and Imperatives of Assurance Service**

According to Elliot (1994), assurance service has to do with evaluation and assessment of the quality of industrial processes, procedures, and general operations. It is often associated with the evaluation of accounting records and procedures, with a view to confirming the accuracy and proper maintenance of finance/accounting records and assuring interested parties that corporate records are free of irregularities. It is not directed at correcting or addressing existing issues, but confirms or denies that corporate circumstances have been reported the way they are. Operationally, assurance service is multi-dimensional and multi-functional, facilitated by intensive/extensive exercises and documentations, such as:

**Audit Report:** The most common of this is financial statement audit, usually conducted by professional accountants (Brackney & Helms, 1996). Information users and decision makers harness audit services to ensure fair presentation of voluntary environmental disclosures.

**Management Report:** Basically, this relates to the efficiency and effectiveness of management operations. It focuses on information systems and operating procedures. not necessarily on recorded amounts or reported financial information. The process requires engagement of independent auditors, who ideally reports to the highest level of an organization, thereby maintaining utmost professional independence.

**Analytical Review Report:** This involves inquiry and analytical procedures that provide accountants with reasonable basis for confirming that there are no material modifications to be made to financial statements for them to be in conformity with acceptable standards.

According to International Federation of Accountants (IFAC) (2004), assurance service engagement may underscore:

1. Financial performance, which relates to historical/ prospective financial position, financial performance and cash flow;
2. Non-financial performance, which relates to corporate performance and key indicators of efficiency and effectiveness;
3. Physical perspective, which relates to the characteristic capacity of industrial facilities;
4. Systems and processes, which relate to internal control as information and communication technology (ICT); and
5. Executive behaviour, which relates corporate governance, compliance with regulations and human resource optimization.

Essentially, audit-seasoned assurance service (ASAS) helps to improve the reliability and relevance of information used as basis for business decisions. The assurance service provider is independent and perceived as being unbiased with respect to the information desired. Relevance is emphasized in ASAS because it indicates the extent to which information is meaningful and useful in handling decisional issues. Relevant information enhances the manager's assessment of uncertainty, though it may not change the decisions itself (Reimers, 1992). Reliability, is also underscored in ASAS as it relates to neutrality of information and extent to which reports represent what they purport to represent. In the light of this, financial statements are usually made verifiable and dependable to assure users that they represent what they are intended to represent. Reliability is to accuracy and precision what credibility is to perceived dependability (Roebuck, Simnett & Ho, 2000). Hason, Maijoor & Mock (2005) contend that assurance

service is necessitated by changing and evolving needs of corporate decision makers. As graphically captured in figure 1, these needs may be profiled in terms of:

- a) Business risk concerns,
- b) Product quality Concerns,
- c) Corporate performance concerns,
- d) Process/systems quality concerns,
- e) Strategic planning concerns, and
- f) Government performance concerns.

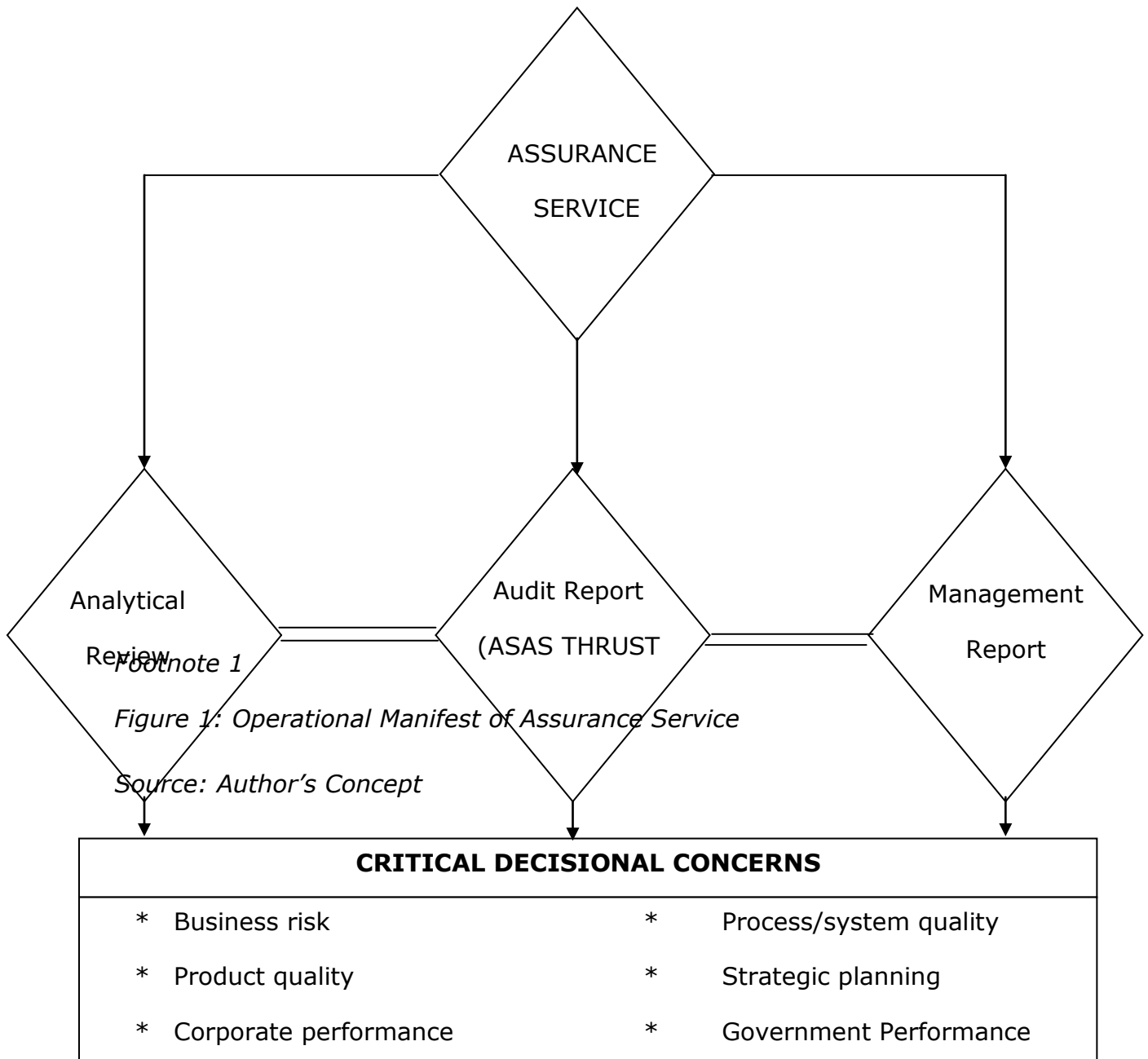


Figure 1: Operational Manifest of Assurance Service

Source: Author's Concept

Although conventional audit service and assurance service are directed at improving the quality of corporate information, each service defines quality differently. In audit service, quality relates to reliability of reported corporate financial information; but in assurance service, quality relates to relevance of corporate operational measures. These strategic quality measures elicit:

- a) Compliance evaluation, which covers cases, degree and rate of compliance/noncompliance with laws and regulations as well as number of verifications undertaken, etc;
- b) Training evaluation, which covers proportion of employees and managers trained on hazardous material transportation and emergency plan, number of training programmes, number of staff initiatives attributed to training programmes; and
- c) Material evaluation, which covers quantity of energy consumed; percentages of recycled materials used, recyclable content in product, and reusable material; volume of recycled materials used in produces and packaging; and quality of raw materials consumed etc.
- d) According to Keen (1999), outcomes of these evaluation processes are expected to support corporate decision makers and information users in:
- e) Monitoring and identifying symptoms, underlying problems and alternative solutions; and
- f) Making timely strategic and operational decisions for greater efficiency and effectiveness;

They are equally auspicious in developing schedules to achieve specific goals and objectives as well as determining resource needs for proper acquisition and utilization.

**Method**

The target population comprises 14 oil producing firms (OPFs) and petroleum marketing firms (PMFs). A total of fourteen (14) quoted on the Nigerian Stock Exchange, as enumerated in Table 1:

**Table 1: Respondent Quoted Firms in the Nigerian Oil Sector**

S/N	Category/Name
(a)	<u>OPEs</u>
1	Shell Petroleum Development Company
2	Total Exploration and Production
3	Nigeria Agip Oil Company
4	Mobil Oil Producing Company
5	Chevron Oil and Gas
6	Texaco Oil
(b)	<u>PMFS</u>
7	African Petroleum Plc
8	Afroil Plc
9	Chevron Oil Nigeria Plc
10	Conoil Plc
11	Eleme Oil and Gas Company Plc
12	Mobil Oil Nigeria Plc
13.	Oando Plc
14	Total Nigeria Plc

Footnote 2

Source: Nigerian Stock Exchange Fact Book (2009)

The officials that volunteered the required data include:

1. Chief Accountants (CA),
2. Chief Internal Auditors (CIA),
3. Independent Auditors (IAs),
4. Environmental Managers (EMs), and
5. Environmental Consultants (ECs).

Five officials were drawn from each OPF/PMF, all these aggregate to 70 respondents. Furthermore, measurement scales were assessed for content validity (the extent to which they provide adequate coverage of the investigation). According to Cooper and Schindler (2001), if a research instrument contains a representative sample of the universe of subject matter of interest, then content validity is good. Also, reliability analysis was expedient as it ensures that the measures to a reasonable extent are without bias (Sekaran, 2003). A pilot survey involving 30 respondents drawn from five firms other than the afore-specified OPFs and PMFs. Test re-test was equally conducted using data generated from the pilot survey. With 0.94 Kendall Co-efficient of Concordance (KCC), as detailed in Table 2, reliability of the research instrument was quite high.

**Table 2: Reliability of Research Instrument**

1 <sup>st</sup> Test (X <sub>1</sub> )	2 <sup>nd</sup> Test (X <sub>2</sub> )	(X <sub>1</sub> X <sub>2</sub> )	(X <sub>1</sub> X <sub>2</sub> )
31	95	-64	4096
41	0	41	1.861
38	25	13	169
63	6	57	3249
0	100	100	10000
28	66	38	1444
47	83	-36	1296
5	52	-47	2209
100	25	75	5625
6	63	-57	3249
52	31	21	441
65	0	65	4225
25	47	-22	484
38	83	-45	2025
42	100	-58	3364
6	52	-46	2116
63	28	35	1225
58	21	37	1369
64	100	-36	1296
78	0	78	6084
20	66	-46	2116
30	83	-53	2809
67	21	46	2116
65	6	59	3481
22	74	-52	2704
80	41	39	1521
32	83	-51	2601
95	28	67	4489
2	78	-56	3136
56	5	51	2601

Footnote 3

Source: Research Data (2011)

$$KCC (W) [12\sum d^2]/M^2N(N^2 - 1) = 0.94$$

Where M = Number of Respondents

N = Number of test items

The research hypotheses are tested using analysis of variance (AN OVA), which particularly underscores the relevance of the F-ratio. Measuring overall fit and indicating the extent to which means of various groups actually differ (Lotus and Lotus, 1982).

**Results**

For the various null hypotheses:

$$\mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5; \text{ Gdf} = K - 1; \text{ and Sdf} = N - k$$

Where:

$\mu_1$  = Mean of responses for Respondent A (RA)

$\mu_2$  = Mean of responses for Respondent B (RB)

$\mu_3$  = Mean of responses for Respondent C (RC)

$\mu_4$  = Mean of responses for Respondent D (RD)

$\mu_5$  = Mean of responses for Respondent F (RE)

Gdf = Group degree of freedom k - I

Sdf = Sample degree of freedom N k

**Table 3: Test of Ho<sub>1</sub>**

Response	RA	RB	RC	RD	RE
Undecided	0	0	0	0	2
Strongly Agree	0	0	0	2	1
Agree	0	0	0	2	3
Disagree	7	6	11	2	0
Strongly disagree	6	4	1	6	6

Footnote 4

Source: Research Data (2011)

For Ho<sub>2</sub> K - 5; N = 5(5) = 25

Gdf = 4; Sdf = 20

F-Cal = 2.866; F (0.05)\* = 0.000

F-Cal > F (0.05)\*; Reject Ho<sub>1</sub>

**Table 4: Test of Ho<sub>1</sub>**

Response	RA	RB	RC	RD	RE
Undecided	0	0	0	0	0
Strongly Agree	0	0	0	6	4
Agree	2	1	0	4	5
Disagree	7	7	9	2	0
Strongly disagree	3	4	3	0	1

Foot note 5

Source: Research Data (2011)

For Ho<sub>1</sub> K - 4; N = 5(5) = 25

Gdf = 4; Sdf = 20

F-Cal = 2.866; F(0.05)\* = 0.001

F-Cal > F (0.05)\*; Reject Ho<sub>2</sub>

**Table 5: Test of Ho<sub>3</sub>**

<b>Response</b>	<b>RA</b>	<b>RB</b>	<b>RC</b>	<b>RD</b>	<b>RE</b>
Undecided	0	0	0	0	0
Strongly Agree	0	0	0	0	4
Agree	0	1	0	6	1
Disagree	9	8	6	3	3
Strongly disagree	3	4	6	3	4

Footnote 6

Source: Research Data (2011)

For Ho<sub>3</sub> K – 4; N = 5(5) = 25

Gdf = 4; Sdf = 20

F-Cal = 2.866; F(0.05)\* = 0.001

F-Cal > F (0.05)\*; Reject Ho<sub>3</sub>

### **Discussion**

The results of this study exemplify the imperativeness of ASAS as critical quality management functional complement in Nigerian professional, commercial and industrial circles. The analytical hypothetical outcomes affirm that ASAS significantly makes a difference in the relevance, timeliness and accuracy of voluntary environmental disclosures in the Nigerian oil sector. Several studies had earlier established a fit between audit report and quality of voluntary environmental disclosures strategic industrial organizations. They contend that with audit reports, the timeliness of environmental disclosure is significantly improved. Also, analytical review of financial statements helps to facilitates professional inquiry and procedures. thus providing more reasonable basis for making critical corporate judgments. On that account, there are no material modifications to be made to existing financial statements for them to conform to acceptable standards. Thus, analytical review reports do enhance the quality of voluntary environmental disclosures (Healy and Palepu, 2001; Akani, 2011).

The quality of voluntary environmental disclosures is equally enhanced by management reports. This is in tandem with the work of Dassen and Schellemari (2001) who particularly submitted that management reports give creditors, investors, suppliers, shareholders and other stakeholders more confidence in making corporate decisions and the efficacy of these assurance-driven reports is not accentuated by professional accountants, but in collaboration with practitioners from other industry-related fields, under a synergistic (trans-disciplinary) system.

### **Conclusion**

In the light of the analytical results of this study, the quintessential revelations for critical consideration and adoption are:

- a) Audit reports make significant difference in the relevance of voluntary environmental disclosures;
- b) Audit reports make significant difference in the timeliness of voluntary environmental disclosures and
- c) Audit reports make significant difference on the accuracy of voluntary environmental disclosures.

These inferential outcomes are quite crucial for regulators and operators in the Nigerian oil sector. For many decades now, oil has prevailed as the major source of revenue to the successive governments in Nigeria. It is still the mainstay of the Nigerian economy. However, oil sector - associated environmental hazards have made operational and general living conditions increasingly worrisome to economy watchers and several other stakeholders. Although the oil sector key players (the OPFs and PMFs) are showing greater poise to be more environmentally responsible and responsive, corporate disclosures



relating to the environment which are largely voluntary, require continuous quality improvement. This necessitates the intervention and intermediation of assurance service, which serves as independent professional complement towards improving the quality of voluntary environmental disclosures and allied financial/non-financial information in the Nigerian oil sector. To harness the strategic professional economies in this regard, there should be:

1. Collective executive insistence on attestations affirming the acceptability of the quality of voluntary environmental disclosures;
2. Objective independent audit strictly reflecting utmost professional accounting/finance ethics in the presentation of voluntary environmental disclosures; and
3. Constructive scrutiny of environment-related financial and non-financial information, fairly and firmly subjected through well established benchmark quality apparatus.

It is equally expediently that the contents of management reports be harmonized with those of audit reports and analytical review reports for sustainable enhancement of the quality voluntary environmental disclosures. To further drive all these ideals, the growing assurance service appreciation among firms in the Nigerian oil sector should be sustained. Making and transmitting voluntary environmental disclosures with high degree of relevance, timeliness and accuracy remain crucial to the collective interest and mutual benefit of government, oil sector industrialists and sundry stakeholders.

### References

1. Akani, F. N. (2011). Assurance Service and Quality of Voluntary Environmental Disclosures in the Nigerian Oil and Gas Industry. Unpublished Dissertation, University of Port Harcourt, Choba, Nigeria.
2. Brackney, K.S. and Helms, G.L. (1996). A Surety of Attestation Practices, *Auditing — A Journal of Practice and Theory*, 73.
3. Cooper, D. R. & Schindler, P. S. (2001). *Business Research Method*, New York: Irwin/McGraw Hill.
4. Dassen, R. J. M. & Schelleman, C. C. M. (2001). The Markey for assurance services. *The Netherlands Working Paper*, Universities Maastricht.
5. Degan. C. & Gordon, B. (1996). A Study of the Environmental Disclosure Practices of Australian Corporations. *Accounting and Business Research*, 1-5.
6. Elliot, R. K. (1994). The Wave Breaks on the Shores of Accounting. *Accounting Horizon*, 106.
7. Elliot. R. K. & Pollais, D. M. (1997). Are you ready for New Assurance Service. *Journal of Accountancy*, 48.
8. Hasan, M., Maijoor, S. & Mock, T.J. (2005). The Different Types of Assurance Services and Level of Assurance provided. *International of Journal of Auditing*, 91.
9. Hay, D. & Davis, D. (2004). The Voluntary Choice of Audit of any Level of Quality Auditing. *Auditing -A Journal of Practice and Theory*. 23(2), 141.
10. Healy. P. & Palepu, KG. (2001). Information Asymmetry, Corporate Disclosure, and Capital markets: A Review of Empirical Disclosure Literature. *Journal of Accounting and Economics*, 31(1 &3), 405-440.
11. International Federation of Accountants (IFAC) (2004). *Assurance Engagements other than Audits or Reviews of Historical Financial Information*. 150, 151 & 879.
12. Keen, P. G. W. (1999). *Business Design through Information Technology*. Boston: HBS.
13. Lotus, G. R. & Lotus, E. F. (1982). *Essence of Statistics*. New York: AKK.
14. Reimers. J. L. (1992). Additional evidence on the need for disclosure reform. *Accounting Horizons*. 6(1), 34-41.
15. Ricchiute. D. N. (2001). *Auditing and Assurance Services*. United Kingdom: SWCP.
15. Roebuck. P., Sirnnett, R. & Ho, J. L. (2000). Understanding assurance service report: A user perspective. *Accounting and Finance*, 40(3), 211-232.



16. Sekaran, U. (2003). *Research Methods/or Business: A Skill Building Approach*. Southern Illinois: John Wiley and Sons.
17. Telberg, R. (1996, Jan. 22-Feb.11). Accountants cautioned on assurance services. *Accounting Today*, 34.
18. Uberoi. N. K. (2003). *Environmental Management*. New Delhi. Excel Books.