



## Sustainability Accounting Information and Role of Accountants in Nigerian Listed Firms

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### Abstract

*In the last couple of decade firms have recognized the task accountants play in sustainability accounting information in promoting transparency and accountability. This study examines the role of accountants in ensuring sustainability accounting information process among selected firms in Nigeria. The data obtained were analyzed using both descriptive and inferential statistics. The findings of the study revealed that accountants are less involved in sustainability information in comparison to other professionals. Although they retain information, the results indicate that they are mere interpreters of information and act as an intermediary between sustainability managers and top management. It is recommended that increasing the involvement of accountants in sustainability accounting information process would enhance the effectiveness and viability of such report for corporate sustainability assessment. Companies should further strengthen the accounting process through training, adoption of policies that support proper platform for effective and sound sustainability accounting information process.*

**Keywords:** Sustainability, Accounting information, Accountants, Managers, Nigeria

### 1. Introduction

In recent time sustainability accounting information process has being an emerging discourse in the field of accounting, and corporate social responsibility (CSR) literature worldwide (Schaltegger & Zvezdov, 2015; Nwobu, 2017). This development is to enhance transparency in accounting reporting process (Schaltegger, 2012; Nnamani, Onyekwelu & Ugwu, 2017). ICAEW (2004) indicates that accountants need to be more involved in information process in order to provide sustainable accounting information to the top and middle management for decision making.

Moreover, managers do always have difficulty in decisions that can impact on social and environmental aspect of business and this depends on the periodic preparation and interpretation of information prepared by accountants (Siyanbola, Fregene & Ogbabor, 2019; Nwobu & Ngwakwe, 2020). Beside this, some scholars have argued that accountants are not many in participating in information process in developed countries such as UK, Germany and in the USA (Wilmshurst & Frost, 2001); but, in the developing countries such as Nigeria the situation is rather unclear. The prior research provides the reasons for investigating the sustainability accounting which includes; improving transparency, to

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provide sound corporate governance and accountability (Alade & Nasieke, 2016; Erhirhie & Ekwueme, 2019; Nwobu & Ngwakwe, 2020).

In addition, the essence of sustainability accounting information is to obey the rules and regulation, compliance with accounting standard and ensuring that business organisations promote corporate sustainability (Nwobu, 2017; Nwobu, Iyoha & Owolabi, 2018; Okwuosa and Amaeshi 2018). This paper explored the involvement of accountants in the process of sustainability accounting information in Nigeria. The pertinent research questions are: what is the role of the accountants in sustainability accounting information process?, what are the challenges accountants face in the process of sustainability accounting information process?

This study illuminates the drivers of engaging accountants in sustainability accounting information process and to enable us understand the consequences of engaging accountants, contribution of accountants in improving sustainability accounting information process and its implication in corporate practice. The main contributions of this study to the literature on sustainability accounting include the following; that accountants contribute to overall performance of the companies to achieved the operational objectives of the companies, there are limitation and challenges such as lack of sustainability expertise, they act as “mere interpreters” of information, “act as a mediator and gatekeeper” between sustainability managers and top management, thus they are “defensive and constructive approaches” in carrying out their function.

However they do not retained information in order to retained existing power in organization but communicate sustainability accounting information to others, as result of this, accountants used “adaptive approaches” in carrying out their function. In addition, the study used independent sample T-test analysis to compare the mean scores of two groups who are accountants and non-accountants to answer the research questions raised in this study. The results revealed that accountants are less involved in sustainability information compared to other professionals such as sustainability managers and general managers.

The remaining parts of the paper are structured as follows. Section two provides the overview of corporate sustainability reporting in Nigeria and general review of the prior literature. The research method of the study is provided in section three. Section four presents and shows the data analysis and discussion of findings. Section five indicates the conclusion and recommendation.

## **2. Literature review**

The concepts of this study, theoretical framework and review of prior studies are discussed in this section.

### *2.1.1 Sustainability accounting information*

The emergence of sustainability accounting information started some years ago and some scholars have documented the contributions of accounting and accountants in improving information management practices for sustainability management (Siyanbola, Fregene & Ogbemor, 2019; Nwobu & Ngwakwe, 2020). The important of sustainability information for firms cannot be over emphasised; this include provision of transparency of accounting reporting Schaltegger & Zvezdov, 2015; Erhirhie & Ekwueme, 2019). It is also important for decision making by top management of firms (Nwobu, Iyoha & Owolabi, 2018). Some scholars also discussed on the drivers of sustainability accounting reporting (Nwobu, Iyoha & Owolabi, 2018; Siyanbola, et al., 2019) and there findings lead to several future research in the sustainability accounting literature. Moreover, Nwobu, Iyoha & Owolabi, (2018) revealed that sustainability accounting information shaped the internal decision making of firms.

### *2.1.2 Adaptive, Defensive and Constructive Approaches of Accountants in Sustainability Accounting Information Process*

There are prior studies that discussed the behaviour of accountants and approaches to such behaviour (Schaltegger and Zvezdov, 2015); while Wilson (1975) interpreted and differentiate between three different ways accountants are involved in sustainability information process. Table 1 below illustrate the main involvement and contributions of accountants in accounting information process.

**Table 1: Showing the major Feature of Accountants**

<b>Effects</b>	<b>Type of involvement</b>	<b>Main Contribution</b>
“gatekeeper of information”	“Defensive ”	“Retain information”
“Authority”	“Adaptive”	“Communicate information received”
“Methodological expert”	“Constructive”	“Act as mediator in sustainability information management”

*Adapted from Schaltegger and Zvezdov, (2015)*

Following from the above Table 1, the approaches and involvements of accountants in the process of accounting information in a firm are discussed.

*a) Defensive Approach*

This approach argued that “the task of accountants is knowledge base and they are expert in information process and accountants retained information”. Schaltegger & Zvezdov (2015) also posited “that the first reaction pattern of an accountant is defensive function which involved accountant is gate-keeper and accountants provide sustainability information to decision makers at the top level”. The authors claimed that as a result of significant of “legal and economic of social and environmental issues globally across difference markets” in developed, emerging and developing countries where there are more awareness on sustainability information process and this enhance changes in various organisations.

*b) Adaptive approach*

Schaltegger and Zvezdov (2015) “argued that accountants are gate keeper, they can combined this task with as methodological expert by operating as interpreter of information. This behaviour is known as adaptive involvement in which accountants communicate the information they received in the overall performance of the firms”.

*c) Constructive approach*

“act as mediator in sustainability information process with their authority in methodological expertise this is known as constructive involvement of accountants” (Schaltegger & Zvezdov, 2015).

*2.2 Theoretical framework*

This sub-section provides the theories that supported the study, these theories are explained below:

*a) Power theory perspective*

Schaltegger and Zvezdov, (2013) posited that “power and expertise theory viewed the task of accountants to include knowledge and information expertise, methodological expertise, authority and gatekeeper. The authors further noted that there are four group of information in which accountants are involved and this include making decision on what information to be collected, explaining the properties of information, the sources and method of collecting data and how to give out the information”

In the light of the above, (Schaltegger and Zvezdov, 2013) “making decision on what information to be collected on sustainability accounting information process issues are the task for the accountants as information expert and methodologically expert”. Professional accountants explained the properties of information, the sources and method of collecting data and given out the information. Accordingly, accountants serve as a link between information creators and information seekers and this also made up information selection to decision makers which characterised them as information gatekeepers”

*b) Promoter theory perspective*

Schaltegger & Zvezdov (2013) argued that “social construct of accounting constitutes management accounting rationality in practice. Thus the authors claimed that accountants interpret sustainability information into a language that can be understood by managers, ability to solve related issues in sustainability information and ability to performed sustainability task in their firms”. Therefore, these highlighted task of accountants to top managers that believed in success of these

sustainability issues, therefore accountants are seen as expert and methodological promoters that bring enlightenment on sustainability accounting information process to the companies”

### *2.3 Overview of Corporate Sustainability Reporting in Nigeria*

In Nigeria, the evolution of sustainability accounting reporting is changing. Aliyu, et al. (2020) revealed that the disclosure of social and environmental issue bring economic development across different continent; consequently this give birth to corporate sustainability accounting reporting through the code of corporate governance. The code of corporate governance was firstly issue by Securities and Exchange Commission [SEC] in Nigeria in 2003, followed by Central Bank of Nigeria (CBN) in 2006 and lately Financial Reporting Council of Nigeria (FRCN) 2018 regulation. These regulatory bodies demand that companies incorporate the requirements of the Code in line with reporting on sustainability as part of their corporate governance from the year 2012 (Aliyu, et al., 2020).

The authors posted that there is a shift towards stakeholder-oriented corporate governance requirements depicted in the changes made to the Code of Corporate Governance for companies operating on the stock market. These codes were issued by the Securities and Exchange Commission (SEC), the Central Bank of Nigeria (CBN) and the National Insurance Commission (NICOM) through a circular in September 2012, and mandated listed firms to incorporate sustainability reports in their corporate reporting by December 31, 2013. As a result, all listed firms (Financial and non-Financial) are expected to comply with a set of sustainable principles base on the activities of each firm (Aliyu, et al., 2020). Thus, the financial reporting guidelines explain standards for sustainability reporting, these guidelines provide that social and ethical, environmental, financial and economic matters should be disclosed in financial reporting” (Aliyu, et al., 2020). Currently the Financial Reporting Council of Nigeria (FRCN) through its 2018 regulation has also mandated all listed firms in Nigeria to disclose their state of sustainability report in their annual reporting.

## **3. Research Methods**

Previous studies in this area of accounting concentrated on content analysis techniques and theoretical approaches (Schaltegger & Zvezdov, 2015). However, this study utilised a different approach through survey questionnaire and interview. As a result, exploring this approach allows for a broad analysis across a wide geographical area through a survey questionnaire and interview technique.

### *3.1 Research Design*

The study adopted a descriptive research design involving the survey method with short structured interview. The data was collected through primary source from the survey questionnaire design to elicit answers to the pertinent research questions. The research is explorative and a pilot study was conducted so as to enhance the robust reliability and validity of the findings of the study. The population for the study comprises of many accountants, several others with accounting function, quite a number of sustainability managers and general managers from the listed companies in Nigeria.

### *3.2 Sources of data*

The instruments used for collection of data for this study was a survey questionnaire, which was designed based on the technical view shaped with a power theory informed perspective of information management (Schaltegger & Zvezdov, 2015). The statements or items of the survey questionnaire are on a likert scale of five-point (1=strongly disagree to 5=strongly agreed). The reason for using this scale is to measure intensity of feeling about the area in question. The justification of choice of a five point likert scale is based on Bryman (2007) who posited that it enables the respondents to express their level of agreement with the statement in the question effectively. At the end of the survey questionnaire there is open ended structured interview question seeking the respondents view to support the findings of the survey questionnaire used for this study.

The population of the study are from selected firms listed on Nigerian Stock Exchange [now Nigerian Exchange (NGX) Group] from Nigeria, this includes financial and non- financial firms across various sectors of the listed firms. Financial firms include Banking industries, Insurance companies. Non-Financial firms comprise of Aviation companies, Oil and Gas, Construction, food and Beverage and other manufacturing companies. The study used snowballing sampling method, the

justification of using this method is to select the sampling from existing study, as a results of large population, developed like a rolling snowballing, this method of sampling build up enough data which are gathered through survey questionnaire and interview.

In this study, we started with small population of the accountants, other stakeholders such as General Managers, Sustainability Managers and others with accounting function in the selected seven sectorial listed firms in the six geo-political zones in Nigeria where sustainability accounting information process are majorly practices. This occurred by expanding the sample through the initial participant to identifying others that should participate in the filling of the survey questionnaire. Thus a large number of respondents were gathered from the sample groups that grow like a snowballing. At this point, a total number of the respondents from the listed firms across the six geo-political zones in Nigeria were 300 respondents. Consequently, 250 copies of survey questionnaire administer were returned; this indicates 83.33 per cent response rate which were subsequently used for the analysis.

Table 2 provide results assessment of the questions' validity and reliability of the data that was collected to answers the research questions of the study. Also in making sure the scale of the study is reliable we checked the reliability of the scale by checking the internal consistency through Cronbach's alpha coefficient and the result indicated 0.75 Cronbach's alpha coefficient. Ideally, Pallant (2010) explained that Cronbach's alpha coefficient of a scale should be above 0.70.

**Table 2: shows the result of the reliability test of Sustainability Accounting Information**

Cronbach's Alpha	No of Item (statements)
0.75	20

*Source: Researcher's Computation*

Table 3 below shows the respondents' demographic characteristic with numbers of respondents and percentages frequency that received survey questions using snowballing sampling technique in selecting sample from the population and the number of respondents that returned the survey questionnaire and percentages of frequency of the respondents that returned the survey questionnaires.

### 3.4 Method of data analysis

The study used the descriptive statistics which include standard deviation, mean value, percentage of frequency and independent samples t-test analysis.

## 4. Results of Data Analysis of the Study

This section provides the findings based on the survey questionnaire used as instrument in collection of the data on the sustainability accounting information and the role of accountants in selected listed firms in Nigeria.

### 4.1 Respondents' Demographic Characteristics

Table 3 below shows the distribution of the respondents' demographic characteristics across all the selected sectors of listed firms in Nigeria. The demographic characteristics consist of sex, job title, geo-political zones, type of industry and sectorial distribution. Table 4 reveals that out of the 250 respondents, 44 per cent were male and 56 per cent were female. These results indicate that the study is gender sensitive as both male and female are represented and the female respondents were in majority. The distribution further revealed that 48.6 per cent were accountants, 40.4 per cent were those performing accounting functions and sustainability manager and the General Manager represent 11 per cent. In terms of Geo-Political Zonal distribution, respondents were gathered from all the zones but the South-West had the largest representation of 40 per cent. The sectorial analysis shows that 76 per cent were from the non-financial industry and the remainder 24 per cent were from financial industry.



**Table 3: Characteristics of the Respondents number and Percentages of Frequency**

Respondents Characteristics	No Received	% Received	No Returned	% Returned
<b>Sex</b>				
Male	120	40.0	110	44
Female	180	60.0	140	56
<b>Job Title</b>				
Accountants	144	48.0	119	48.6
Professional Accountants in Accounting Firms	30	10.0	25	10.0
Officer with Accounting Functions	30	10.0	25	10.0
Sustainability Managers	61	20.3	51	20.4
General Managers	35	11.7	30	11.0
<b>Geo-Political Zone</b>				
South-West	110	36.0	100	40
South-South	65	22.0	60	24
South-East	50	17.0	40	16
North Central	30	10.0	20	8
North West	28	0.09	20	8
North-East	17	0.06	10	4
<b>Type of Industry</b>				
Financial	80	27.0	60	24
Non-Financial	220	73.0	190	76
<b>Sectorial</b>				
Banking	46	15.3	41	16.4
Insurance	30	10.0	24	9.8
Aviation	41	13.7	34	13.6
Oil and Gas	80	27.0	70	28.0
Construction	20	0.07	14	5.6
Other manufacturing	54	18.0	46	18.4
Food and Beverages	28	0.09	21	8.4

*Source: Researcher's Computation*

#### 4.2 Descriptive Analysis

This section sought to examine the respondents' views on the role of accountants in sustainability accounting reporting in Nigeria. The area of involvement in sustainability accounting information in the study adopts the adaptive, constructive and defensive involvement framework, their contribution, challenges and the role played by accountant and non-accountant group.

**Table 5: Decision on Adaptive, Constructive and Defensive Involvement of Respondents in Sustainability Accounting Information**

Statements	Code	Mean Value	Stand. Dev.	% of Freq.	Decision
"Accountants interpreted information on sustainability and communicate to management in your company"	ACD_9B	4.0	0.29	94.8	237, Agree
"Accountants act as mediator in sustainability information management in your company"	ACB_10	4.3	0.52	67.2	168, Agree
In your organisation accountants focused on (selectively) in providing sustainability information to decision makers in top management positions	ACD_11	4.0	0.29	95.2	238 Agree

*Source: Researcher's Computation*

Table 5 shows the descriptive analysis that illustrates decision on adaptive, constructive and defensive involvement of the respondents in sustainability accounting information. The results revealed that the respondents agreed (94.8, 67.2 and 95.2 per cent respectively) on the following; that accountant interpreted information on sustainability and communicate to the

management (Mean Score = 4.0, Standard Deviation 0.29), acted as mediator (Mean = 4.3, Standard Deviation 0.52) and focused on providing sustainability information for decision making (Mean = 4.0, Standard Deviation 0.29).

**Table 6: Contribution of Accountants in Sustainability Accounting Information**

Statements	Code	Mean Value	Stand. Dev.	% of Freq.	Decision
"Accountants retained sustainability information in order to retain their existing power in their organisational structure"	Contr-_12	2.4	0.62	60.8	152 Disagree
"Accountants do not retain sustainability information in order not to retain their existing power in their organisational structure"	Contr-_13	2.5	0.70	54.8	137 Disagree
"In your company accountants are willing to contribute towards improving the overall performance of the company and achieve operational objectives"	Contr-_13	4.9	0.63	99.6	249 Strongly Agree
" accountants make use of their formal authority without pursuing objectives beyond that authority"	Contr-_14	1.8	0.96	53.4	134 Disagree
"accountants make use of their formal authority by pursuing objectives beyond that authority"	Contr-_16	4.0	0.43	84.8	212 Agree
"Accountants are willing and interested to support the sustainability accounting process but lack of sustainability expertise of accountants leave them no option but to act as mediators in sustainability information management"	Contr-_17	4.0	0.74	80.4	201 Agree

*Source: Researcher's Computation*

Table 6 shows the results of the descriptive and frequency of the contribution of respondents to sustainability accounting information. The result indicates that the respondents disagreed (60.8, 54.8, 53.4 per cents respectively) that accountant retained sustainability information in order to retained their existing power in organisation (Mean = 2.4, Standard Deviation 0.62), accountant do not retained sustainability information in order not to retained their existing power in organisation structure (Mean = 2.5, Standard Deviation 0.70) and the need to exercise power is low as a result accountants make use of their formal authority without pursuing that objective beyond that authority (Mean = 1.8, Standard Deviation 0.96).

However, the respondents agreed on the following; that accountants (99.6, 84.8, 80.4 per cent respectively) are willing to contribute towards improving the overall performance of the company and achieved operational objectives (Mean = 4.9, Standard Deviation 0.63), the need exercise power is higher and as result accountants make use of their formal authority by pursuing objectives beyond that authority (Mean = 4.0, Standard Deviation 0.43), and accountants are willing and interested in supporting the sustainability accounting process but lack of sustainability expert made them to act as a mediator (Mean = 4.0, Standard Deviation 0.74).

**Table 7: Respondents view regarding the Gatekeepers, others Roles of Accountants and other Actors in Sustainability Accounting Information Process**

Statements	Code	Mean Value	Stand. Dev.	% of Freq.	Decision
"In your organisation accountants are involve in directing data generation and communicating sustainability information to higher management"	Gate_Rol_18	3.2	1.2	48.4	121 Disagree
"Accountants used their technical expertise of defining what information that need to be collected and produce this information on sustainability accordance to international accounting standard"	Gate_Rol_19	4.1	0.42	80.4	201 Agree
"In your company accountants provide sustainability information to others"	Gate_Rol	4.1	0.34	88.4	221 Agree

	20				
“In your organisation sustainability managers involvement in directing data generation and communicating sustainability information to higher management”	Gate_				
	Rol	4.0	0.10	98.8	247
“Sustainability managers used their technical expertise of defining what information that need to be collected and produce this information on sustainability accordance to international accounting standard”	21				Agree
	Gate_				
	Rol				211
	22	4.1	0.37	84.4	Agree
“In your company sustainability managers provide sustainability information to others”	Gate_	4.0	0.26	92.8	232
	Rol				Agree
	23				
“In your organization General manager involve in directing data generation and communicating sustainability information to higher management”	Gate_				
	Rol				127
	24	4.0	0.57	51	Agree
	Gate_				
“General managers used their technical expertise of defining what information that need to be collected and produce this information on sustainability according to international accounting standard”	Rol				127
	25	4.0	0.69	50.8	Agree
“In your company General managers provide sustainability information to others”	Gate_				164
	Rol	4.0	0.50	65.6	Agree
	26				

*Source: Researcher's Computation*

The results in Table 7 show the respondents view regarding the gatekeepers, other role of accountants and other actors. The respondents believe that accountants are not really involved in directing data generation and communicating sustainability information to higher management (Mean = 3.2, Standard Deviation 1.2). However, the respondents agreed (with frequency greater than 80 per cent) on the following; accountants, sustainability managers and general managers used their technical expertise in defining what information that needs to be collected and produce on sustainability according to international accounting standard (IAS), accountants, sustainability and general managers provide sustainability information to others; sustainability managers and general manager are involved in directing data generation and communicate the information to higher management. They all have a mean score of 4.0 and above.

**Table 8: Challenges facing Accountants in process of sustainability accounting information**

Statements	Code	Mean Value	Stand. Dev.	% of Freq.	Decision
“Accountants face limitation in performing their roles”					136
	Chale_27	4.4	0.54	54.4	Agree
“There are challenges facing your company on sustainability accounting information”					136
	Chale_28	4.4	0.54	54.4	Agree

*Source: Researcher's Computation*

Table 8 highlights the challenges facing accountants in the process of sustainability accounting information. The results indicate that accountants face limitation in performing their role in sustainability information (Mean = 4.4, Standard Deviation 0.54) and other challenges in carrying out their roles (Mean 4.4, Standard Deviation 0.54).

**Table 9: Results of Independent Samples T-Test Analysis on Sustainability Accounting Information and the Role of Accountants**

Role of Accountants	Code	Group Variables	N	Mean	SD	T	Sig.
“Interpreted information on sustainability and communication to management”	ACD_9	“Non-Accountants”	81	4.00	0.00	-1.99	0.050
		Accountants”	169	4.03	0.35		
“Act as mediator in sustainability information management”	ACD_10	“Non-Accountants”	81	4.64	0.48	7.82	0.000
		Accountants”	169	4.14	0.45		



"Providing sustainability information to decision makers in top management position"	ACD_11	"Non-Accountants Accountants"	81 169	4.00 4.05	0.00 0.34	-1.80	0.074
"Retain sustainability information in order to retain their existing power in organizational structure"	Contr_12	"Non-Accountants Accountants"	81 169	2.20 2.30	0.48 0.65	3.50	0.097
"Do not retain sustainability information in order to retain their existing power in organizational structure"	Contr_13	"Non-Accountants Accountants"	81 169	2.88 2.42	0.59 0.70	5.34	0.000
"Willingness to contribute towards improving the overall performance of the company and achieve operational objectives"	Contr_14	"Non-Accountants Accountants"	81 169	5.00 4.99	0.00 0.76	0.17	0.0692
"Exercise power from above statement in lower level and make use of their formal authority without pursuing objectives beyond that authority"	Contr_15	"Non-Accountants Accountants"	81 169	2.53 1.54	0.85 0.83	8.61	0.000
"Exercise power from above statement in high level and make use of their formal authority without pursuing objectives beyond that authority"	Contr_16	"Non-Accountants Accountants"	81 169	3.87 4.01	0.33 0.46	-2.64	0.009
"Accountants willing and interested to support the sustainability accounting process but lack of sustainability expertise"	Contr_17	"Non-Accountants Accountants"	81 169	4.12 3.76	0.33 0.84	4.81	0.000
"Accountants involvement in directing data generation and communicating sustainability information to higher management"	Gate_Rol18	"Non-Accountants Accountants"	81 169	4.01 4.02	0.46 0.45	-2.46	0.000
"Accountants collected and produce information on sustainability accordance to International Accounting Standard (IAS)"	Gate_Rol19	"Non-Accountants Accountants"	81 169	4.36 4.48	0.48 0.57	-1.75	0.000
"Accountants provide sustainability information to others"	Gate_Rol20	"Non-Accountants Accountants"	81 169	4.36 4.48	0.48 0.57	-1.75	0.000
"Sustainability managers involvement in directing data generation and communicating sustainability information to higher management"	Gate_Rol21	"Non-Accountants Accountants"	81 169	3.65 3.00	0.97 1.30	4.43	0.000
"Sustainability Managers Collected and produce information on sustainability accordance to International Accounting Standard (IAS)"	Gate_Rol22	"Non-Accountants Accountants"	81 169	4.12 4.21	0.33 0.45	-1.77	0.078
"Sustainability Managers Provide sustainability information to others"	Gate_Rol23	"Non-Accountants Accountants"	81 169	4.00 4.15	0.00 0.40	-4.90	0.000
"General managers direct data generation and communicating information to higher management"	Gate_Rol24	"Non-Accountants Accountants"	81 169	4.00 4.01	0.00 0.13	-1.21	0.015
"General Managers used technical expertise produce information on sustainability accordance to International Accounting Standard (IAS)"	Gate_Rol25	"Non-Accountants Accountants"	81 169	4.12 4.17	0.33 0.37	-0.98	0.044
"General managers provide sustainability information to others"	Gate_Rol26	"Non-Accountants Accountants"	81 169	4.00 4.09	0.00 0.31	-3.93	0.000

"Accountants face limitation in performing their roles"	Chale_27	"Non-Accountants	81	4.36	0.48	-1.75	0.081
		Accountants"	169	4.48	0.57		
"There are challenges facing your company on sustainability accounting process"	Chale_28	"Non-Accountants	81	4.36	0.48	-1.75	0.081
		Accountants"	169	4.48	0.57		

**Source:** *Researcher's Computation*

Table 9 provide the opinion of each respondent ("Non-Accountants and Accountants") using independent samples t-test analysis to revealed the view of each category of independent variables such as "Non-Accountant/Accountants" and the continuous dependent variable such as each statement or items in the survey questionnaire. An Independent-sample t-test analysis shows whether there is a statistically significant difference in the mean scores for the two groups ("Non-Accountants and Accountants") differ significantly in terms of each statements/items in the data from the survey questionnaire. In statistical terms, the two groups were used in testing the probability that the two sets of data are from the same population.

Each group of respondents ("Non-Accountants and Accountants") agreed that accountants interpreted information on sustainability and communicates to management; they act as mediator in sustainability information management and provide sustainability information to decision makers. The results in Table 8 show that the difference in each mean scores of each statement is statistically significant. This suggests that accountants have trait of adaptive, constructive and defensive in managing and in using sustainability information. However, each group disagree that accountants retained sustainability information in order to retain their existing power in organizational structure and do not retained information in order to retain power, make use of their formal authority without pursuing objectives beyond that authority; while they all agree that accountants contribute towards improving overall performance of the company and achieved operational objectives, they lack sustainability expertise as a result they are mediator in sustainability information management; this finding indicate a significant difference in the mean scores.

Moreover, the respondents in each group ("Non-Accountants and Accountants") believed that sustainability manager and general manager direct data generation and communicating information to higher management, provide information to other, used technical expertise to produce information on sustainability in accordance to International Financial Reporting Standard (IFRS). Furthermore, the respondents indicate that there are limitations that accountants are facing in performing their roles and there are challenges facing accountant in carrying out their roles in sustainability accounting information process. These findings in Table 8 highlight the existence of an execution gap (Williams, 2018; Bennett, et al., 2013) between the tasks accountants should play in the sustainability accounting process.

#### 4.3 Discussion of the Findings

Based on the findings of this study there are evidence that accountant's play the task of data generation and communicating information to higher management. This implies that accountants are involved in sustainability accounting; although less when compared to other professional such as the general managers and sustainability managers. This result suggests that sustainability accounting may likely be practiced by non-accountants in most listed firms in Nigeria. In addition, this study revealed that accountants play the task as a "gatekeeper" in area pertaining to their technical expertise in defining what information needs to be collected and produce to others in accordance to International Financial Reporting Standard (IFRS).

However, there are challenges facing the accountants in acting as a "gatekeeper" in their task as producers of sustainability accounting information. This findings using Nigeria as a case study make this a paper unique because there are few papers that used empirical analysis to reveal this results; however Schaltegger & Zvezdov, (2015) used conceptual analysis to argue that accountants may likely face some challenges in carrying out their duties in sustainability reporting using UK and Germany firms as case study.

In recent time, there is awareness of legal and economic relevance of social and environmental issue in many countries globally, as a result of globalization in business. Sustainability information has a great influence on many firms globally and this enables management to restructure their firms leading to changing power structures (Schaltegger & Zvezdov, 2015). Against this background, accountants allow retaining information, this defensive involvement of accountant and the power

in exercising this is very high in most of the listed firms in Nigeria. Besides this, accountants serve as “interpreter”, providing information for decision makers and willingness to contribute towards improving overall and operational objectives (Erhirhie & Ekwueme, 2019). Therefore, accountants play an “adaptive” task and their main contribution according to the results shown in Table 8 which indicates that accountants translate their information into “management language”. The result further shows that the need to exercise their “power” is not too high. This finding is not consistent with Schaltegger & Zvezdov (2015) on the role of accountants in sustainability information in the UK and Germany firms.

Furthermore, Accountants are willing and interested to support the sustainability accounting information process, but lack of sustainability expertise leaves them with the option to act as “mediator” and their involvement are constructive in sustainability information management. This action indicates that accountants play a task of “mediator” in their main contribution to the sustainability information process. The level at which to exercises this power is another challenges accountants are facing in area of sustainability accounting information process and this results is consistent with the findings by Schaltegger & Zvezdov (2015) on the role of accountants in sustainability information in the UK and Germany firms.

Independent-sample t-test analysis for each group of respondents (Non-Accountants and Accountants) indicates that the difference in each mean scores of each statement in the survey question is statistically significant. These findings empirically support the results shown in Tables 4-7 and buttress the results for this study. The results of the interview show the opinion of various stakeholders in sustainability accounting information management process and the findings also answer the research questions in the study in which the respondents revealed that there are challenges facing the accountants in carrying out their roles in sustainability accounting information process.

#### 4.3.1 Discussion of the Interview from the respondents

The short interview question states that respondents should comment on sustainability accounting information and the role of accountant in the listed companies in Nigeria.

*“Majority of the respondents expressed their opinion that accountants are interpreters, act as middlemen between sustainability managers and top management; also there are challenges and limitation facing accountants which include lack of sustainability expertise”.*

## 5. Conclusion and Policy Implication

Based on the findings from the respondents, this paper shows that accountants take a gate keeping function between sustainability managers and top management in relation to sustainability information. However, there are challenges facing accountants in carrying their task such as lack of adequate knowledge in data communication. Also accountants involved in “defensive” by retaining information so that they will not lose their power in corporate structure; therefore they performed the function of middle men in the decision making.

Furthermore, accountants perform the function as “adaptive” makes them to be interpreting sustainability information and power to carry out their task on the average level. Also in constructive involvement, they act as “mediator” and the power to exercise this function is decreasing. There is need for professional bodies and government regulatory agencies to provide adequate enforcement on guideline and training on sustainability information for accountants in Nigerian firms. This will enhance their involvement in adaptive and constructive area and also eliminate other inherent challenges facing accountants in sustainability accounting information in their firm. The major implication for future research is to examine how accountants can be more strongly involve in sustainability accounting, information management and management of decision making in listed firms in Nigeria and in Sub-Saharan African Countries.

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