Analysis of Editorial Discourse on Environmental Challenges in Nigerian Newspapers: the Case of 2012 Flooding

Nnanyelugo Okoro, Ph.D, Senior Lecturer and Head,
Department Of Mass Communication, University Of Nigeria, Nsukka)
Nnanyelugo05@yahoo.com
Chinedu Christian Odoemelam, Research Fellow, Department Of Mass Communication, Univesity Of Nigeria, Nsukka.
Email: judahmandate@gmail.com
Obayi Paul Martin
Research Fellow, Department Of Mass Communication, Univesity Of Nigeria, Nsukka.
Email: frobayi@gmail.cm

Abstract
Researches on editorials examine the discursive strategy or pattern as a response to issues of public significance by newspapers. One of the major issues that had serious public environmental and health significance in the year 2012 was flooding. The devastating impact of the flood on different aspect of Nigeria's life is well documented in extant literature. However, there is a gap in studies examining the editorial discourse on the issue. Such a lacuna has serious implications for understanding how the media as an institution debated on the issue and contributed to policy decision on environmental challenges. The study content analysed a sample of four Nigerians newspapers. The following categories were examined: 'source attribution', 'attribution of blame', advocacy' and the 'articulation of solution'. The entries coded were subjected to inter-coder reliability test, using Holsti's reliability index. The inter-coder reliability was 89.1percent index.   Findings showed that the newspapers use source attribution in their editorials to give credibility to debates on environmental issues. The study also found that experts sources were the major attributions. Also, blame for the issues surrounding the editorial and advocacy for attitude change, were systemic. Finding also showed that policy solution was the most articulated variable. It is recommended that, since editorial discourse on public risk are seen as crucial drivers of environmental policies and government response; editorials should develop constructive discourses on environmental sustainability.
Keywords: Analysis, Editorials, Discourses Environmental health, Challenges, Flooding

Background of the Study

Editorials seek to influence action, persuade and aim to redirect policy decisions. Therefore, analyses of editorial discourses always dwell on the strength of the editorial argument and the devices employed to convince the readers. Research on opinion journalism suggests that editorials may impact public opinion regarding important issues (Golan 2010, p.51; Van Dijk, 2010; Pak 2010). As a result, scholars are interested in examining how the editorials argue in favour of or against issues of national importance, especially in adverse situations. In this study of editorial discourse on environmental challenges, reference is made to an understanding of the media which posits that media's discourse and reflections on the state of the nation's environmental challenges, will serve as a stimulant for improved policy actions (Golan, 2010). It also borrows from Gnanaseelan (2011)'s position that discourse constitutes power in constructing ideational, textual and interpersonal constructs which are ideological. The main task of this study is to examine the discursive devices or strategies used by the editorials in their discourse on environmental challenges in Nigeria. The study will specifically examine the discourse on flooding.

There is little doubt among environmental experts that flooding has become a serious challenge in Nigeria. *Thisday* editorial of 11th July, 2013 affirms this and notes, "It is noteworthy that floods are among the most frequent and costly natural disasters in terms of human hardship and economic loss and they have caused untold damage in the last couple of years". The flooding situation in Nigeria, which started on the 2nd of July, 2012, had serious devastating effect on both lives and properties, with extensive damage reported on houses and agricultural produce. Studies (Ologunorisa and Adeyemo, 2005; Oguntala and oguntoyinbo, 1982) have shown that natural disasters like flooding have usually interrupted human activities and caused destruction to properties and lives and this result in human suffering and distress. Ologunorisa and Adeyemo observed that citizens and victims usually, have little knowledge of the frequency of severe floods, and flood alleviation schemes. Their study noted that most flood victims do not get compensation or relief due to the politics involved in the allocation processes. They concluded that flood control needs the cooperation of government, community efforts and enlightenment programmes through environmental education and mass media (Ologunorisa and Adeyemo, 2005).

Studies (Pak, 2010, p.107; Takahashi, 2008, p.152-156; Lawrence, 2004, p.57) show that editorials do not just express their opinion on issues of public significance but adopt discursive strategies to drive home their point and make their contributions credible. To do this, editorials adopt some discursive strategies like, 'source attribution', 'attribution of responsibility', 'advocacy' and 'articulation of solutions' in line with the identified problems. The next few paragraphs will provide an explanation of how these strategies are used in communicating editorial opinion or position on an issue.

In his discourse about 'source attribution' as a communicative strategy for gaining credibility in editorial discourses, Pak (2010, p.108) observed that, "the credibility of texts like the newspaper may depend on which forces it gives expression to, or more formally, which organizations and institutions and public figures it takes as valuable sources of information and comment". He notes further that, as part of their argumentative strategies, editorials give credibility to their opinion by attributing it to sources. Editorials attribute the source of their ideas with the intention to influence opinion and gain wider support.

> The chief thrust of attributing ideas to sources is to appear to build a case for
> evidence, which strengthens the credibility of the arguments and thus the
> evaluation offered by the newspaper. By examining the use of attribution, one
> may be able to assess better which types of sources play an important role in
> shaping the opinions of a particular culture (p.107).

Also Takahashi (2008:168) notes, "Perceived source credibility appears to be a prerequisite for successful discourse". In this study therefore the content will be coded for attribution of sources. The next discourse category to be examined in this study is the attribution of responsibility or blame.

Research shows that, who is blamed and burdened in editorial debates, can be analyzed in terms of individualizing versus systemic discourse. Individualizing discourse limit the causes of a problem to particular individuals, often those who are afflicted with the problem. Systemic discourse broadens the focus, assigning responsibility to government and larger social forces. As Lawrence (2004, p.57) has observed, in political discourse, it is useful to think of individualizing and systemic discourses anchoring opposing poles of a continuum with some arguments drawing from elements of both. The closer the overall pattern of public discourse moves toward the systemic end of the continuum, the more conducive will be the environment for public policies that burden powerful groups and hold political institutions responsible for addressing the problem. Defining a problem in individualized form, limits governmental responsibility for addressing it while systemic discourse invite governmental action (Lawrence, 2004, p.57)   For instance the case of the recent floods in Nigeria, blames have trailed the events that led to the flooding and the events that followed. Some scientific opinions have blamed the current flooding in Nigeria on natural factors while others have blamed human factors.

> Human practices have caused the flooding because the drains are blocked and the water
> could not flow into proper channels; when things are not done in the right way that we
> should do it, we will have flooding. It happened mainly this year due to environmental
> lawlessness because people fail to regulate and control their drains. That is the reason
> why NIMET and the National Emergency Management Agency (NEMA) always advise
> people to clean their drains always because it is not every excessive rainfall or runoff that
> can cause flooding. It happened mainly this year due to environmental lawlessness
> because people fail to regulate and control their drains.(*NIMET, 2012*).

while others have blamed it on natural causes**:**

> Factors such as excessive rainfall, blocked drains and runoff from rivers and
> streams could be responsible for flooding. When the volume of rainfall cannot be
> absorbed by the soil or when the rate of rainfall is more than the rate of absorbing
> capacity of the soil, then flooding will be experienced (*Environment*, 2012).

Another discursive strategy that will be examined is the articulation of solution.

The theme of solution is one other content that makes the editorial quite distinct from other genre of media content. While other genre limit themselves to the presentation of the factual event, editorials being opinion, go as far as articulating solution to the issue editorialized. Takahashi (2008:164) examined the theme of solution in newspaper coverage of climate change in the United States and found that the theme 'solution' had quite appreciable usage (35%). This showed that in the newspaper discourse he examined, the content proffered solution to the challenge of climate change. Other studies have emphasized the importance of articulating solution to a phenomenon by editorials. They argued that, if the editorial uses the structure of articulating a solution more than other structures, it will set the right environment for behavior change, progress, policy direction and the match to development. Thus, it is not enough to editorialize about societal problems on the pages of the newspaper. Such editorials should also articulate solutions. (Odoemelam et al, 2013; Fartousi, 2012).

The aim of this study was therefore to examine editorial 'behaviour' towards environmental disturbances in the context of flooding in Nigeria. Flooding has been common recently in Nigeria, thus making it

ideal for such a study to be conducted. Understanding editorial discourses on the subject matter may be important as it would inform public education, and communication strategies on flooding. Furthermore, having an understanding of editorial attitude to flooding may be important since any success to address potential consequences associated with environmental challenges and their health implications may depend on print journalism's editorial concern about the phenomenon. This study draws insights from previous studies on environmental challenges and applies these to flooding. Therefore, the study is burdened with the responsibility of assessing the degree to which editorial discourse on environmental challenges in the context of flooding may create an atmosphere for a concerted public policy response to the issue.

Statement of the Problem

This particular study investigates Nigerian newspapers' editorial discourse on environmental issues particular the flooding incidence in the year 2012, due to its significant impact on Nigeria's socio- economic life. The purpose of the study is to examine how the editorial pages argued the issue by attributing to sources, assigned responsibility, advocated for behavior change and proffered solutions. Literature review establishes that the mainstream media play a significant role in the public debate over environmental issues. Extant literature also point to the fact that, coverage of environmental challenges has been linked to real life consequences regarding environmental sustainability. However, it seems nothing is known about how the editorial pages debated the issues on the flooding. Due to this gap, this study combines the quantitative and qualitative approaches to examine the pattern of editorial discourse on the issue. This task is important because, literature establishes that editorial debates on issues of common concern, influence public policy actions and as such, editorial writers take deliberate steps in attributing to sources, assign responsibility/blame, advocate for behavior change and articulate solutions in their discourse on issues of national significance.

In summary, the study examines environmental debate in the editorial section of Nigerian daily newspapers. The aim is to find out how Nigerian editorials present discourses on environmental challenges with the intent to impact on environmental policy actions and behavior change. The study asks: To what did the editorials attribute responsibility or the cause of the flooding? What was the dominant source of attribution in the editorials? To what extent was source attribution used as an argumentative device in the editorial discourses? What was the tone of behavior change advocacy in the editorials? How did the editorials articulate the theme of solution in their discourses?

Objectives of the Study

The study had the following objectives:
  i.   To determine the level of source attribution in the editorials.
  ii. Examine the extent the editorials used source attribution as an argumentative device in their discourses.
  iii. Determine editorials' attribution of responsibility or blame for the flooding.
  iv. To examine the direction of editorial advocacy for behavior change on flooding.
  v.   Ascertain how the editorials articulated solution to the flooding challenge.

Research Questions

The following research questions guided the study:
  i.   What was the level of source attribution in the editorials
  ii. To what extent was source attribution used as an argumentative device in the editorial discourses?
  iii. To what did the editorials attribute responsibility or blame in the flooding discourse?
  iv. What was the direction of behavior change advocacy in the editorials?
  v.   How did the editorials articulate the theme of solution in their discourses?

Literature Review

The review of literature was done under two broad subtitles: Conceptual and Empirical reviews.

Empirical Review
   • Editorials and Persuasive Strategies\

Analyses of editorial discourses as studies (Van Dijk, 2010; Pak 2010), show, have always dwelt on the strength of the editorial argument and the devices employed to convince the readers. In this regard, Pak (2010) in his work, *According to which source? An Analysis of the use of attribution in American, Spanish and Mexican newspaper editorials,* examined source attribution as an argumentative device in newspaper editorials across three countries. Through a comparative approach, he examined the frequency of attributed statements, the typical source of attribution and the function of the year 1994, the study collected a sample of thirty editorials from the following newspapers: New York Timer, El Pais and El Universal. His Study revealed that, while the American newspaper place high value on specialists and scientific/statistical reports, the Mexican and Spanish newspapers relied on other sources such as political figure to convince readers.

The above study contrasts with this present study in diverse ways. For instance, this present study examines editorial discourse on environmental health only and focus on one phenomenon the 2012 flooding in Nigeria. While the former study compared newspapers across three different countries, this present study compares editorial discourses in four Nigerian newspapers. Also, while the above study used only the quantitative method in collecting and analyzing data, this study triangulates and adopts the qualitative method of dialectical research. However, both studies are relevant to the understanding of how editorial adopt argumentative devices to convince their readers.

Also, to determine the type of persuasive strategy in newspaper editorials, Scholars examine the rhetorical pattern and rhetorical devices used. For instance, Fantousi (2012) analyzed the editorial discourse of the daily tabloid in Malaysia. He set out to identify the element of generic structural potential, their sequence and some rhetorical figures used throughout the editorial. The study found that there were a number of rhetorical organizational devices/figures in the editorial and that they were devices of influencing and persuading readers of editorials. The above study differs from this present study in that, while the former focused on strategies used in editorials to help audiences better realize and accept the main intent of an editorial, this present seeks an understanding of editorial discourse on environmental health.

As an example of opinion journalism, editorials have been analyzed to find out the pattern of discourse in the coverage of health related issues. In 2010, Golan, in his paper editorials op-ed columns frame medical malignance with the aim of advancing knowledge of opinion journalism by examining how opinion writers framed the controversy surrounding marijuana in newspaper articles California USA. In the study, articles for analysis were retrieved through a lexis Nexis search using key words "medical marijuana" between the months Nov 11 2006 and Nov. 11 2008. A total of 101 articles made up the final sample which included 67 editorials and 34 op-eds. Articles were coded from the some of the following variables area of expertise, Author, issue frame, sub issue frame, Health issue, support or opposition to medical marijuana, criticism of individual, criticism of organization. The study found that, while the editorials extended issue framing into the legal, political and social implications of legalized medical marijuana, the op-ed sections presented a limited framing strategy, with half of all op-ed articles focusing on the on the medical implications.

Also, editorial discourses have been analysed to provide insight into how opinion journalism influence the understanding of government response to terrorism. In this regard, Ryan (2004) in his study, *Framing the war against terrorism,* analysed 10 largest US newspapers. The study period was 12 September 2001-30th September 201 that is, the day after the terrorist bombing of the Twin towers in New York to the day the US asked Afhagnistan to extradite the chief suspect, Osama Bin Laden. The study coded for *"you're with us"* or 'with the terrorist' 'terrorist' *'Assumes war, assumes war will not stop terrorism', 'Assume justification'*. The study found that the editorials drew selectively on historical references, government sources and contextual statements in similar ways to frame the tragedy and the potential us response to the war. None of the editorials examined in the study suggested that military intervention in the brought against terrorism was inappropriate neither did any of the editorials opinion that the military action would not succeed. The study offered useful insight in understanding how editorials could be used to endorse government's policy actions. It differs in function with the present study because, the present examines the augmentative devices or strategies in editorials used in discussing issues of national significance. (Meltzer, 2007; Clayman & Reisnez, 2012).

Scholars have also argued in favour of editorials to influence reader's voting decisions and therefore intervene in the democratic process. For instance, in 2012, Meltzer undertook a study titled Newspaper editorial boards and the political office in the USA. The study adopted ethnographic observation method also interviewed four newspaper editorial board and 16 editorial board members in Pennsylvania USA. The study explored the purposes and role with which editorial board members believe they undertake the endorsement process in voting campaigns. The study found that decision to endorse a candidate in editorials, involves a mixture of business motives, constraints and journalistic and democratic ideals. The study concluded that the editorial endorsement of political candidates is an integral part of the electoral machinery. This present study contrasts with the above study because it seeks to examine how editorials engage in discourses pertaining to environmental and they engage the devices of argumentation in their attempts at influencing policy action (Meltzer, 2012).

Research has shown that newspaper editorials have been used to determine the image of nations as perceived by other nations. In this regard, Khan (2007), in his study, titled *The image of Pakistan in prestigious American newspaper editorials: A test of the media conformity theory*, examined the theory that claims the American mass media generally conformity theory, examined the theory that claims the American mass media generally conform to the foreign policy of the us government. The study content analysed, the editorial coverage of Pakistan in the three elite American newspaper, with a window period of October 1999 to May 2007. A total of 130 editorials were retrieved from the Lexis Nexis database. The study found that the theory of media conformity was not supported by available data but rather, fall closely to the cultural difference theory advanced by Kavin (2000) and Khalid (2001). The study concluded that there was a general bias against Muslims by American newspaper editorials.

In another study, Barnes Deroche (n.d) found that it is through the newspaper editorial pages that editors hope to educate and persuade the public about the issues of the day. In their study, titled; *what do Newspaper editorials have to say about teacher education programs?* They found that editorials in California Newspapers call teacher training preparation but when they do, they are not complimentary about the training that potential teachers receive. The study found that editorial call teacher preparation training which seems to reflect their attitude.

In summary, this review of literature has provided an overview of the existing literature on the area of editorial discourses on issues of diverse importance. Some gaps are identified. For instance, studies on discursive patterns in editorials discourses on environmental issues like flooding seem non-existent. This study seeks to fill this gap and contribute to extant knowledge in the area.

Theoretical Framework

- Critical Discourse Theory

The Critical Discourse theoretical frame work was advanced by Van Dijk (1987) in his seminal work, *communicating racism: Ethnic prejudice in thought and talk*, in which he discussed the link between micro and macro levels of analysing patterns of communication. The critical discourse theory, views discourse not only as a reflection of existing social structures, but where social structures are produced, reproduced, reconstructed, confirmed, legitimised or resisted. Hence the critical analysis of discourse acknowledges the larger socio-political sphere within which the discourse is situated. Critical approaches to discourse typically aim to prove by analysis that discourse is rarely neutral or free of ideologies (Azlan, 2012).

According to Azlan (2012), the critical discourse theory seeks to interpret discourse in terms of how and why discourses are constructed the way they are. The theory argues that, language use and communication of the micro level may reinforce larger ideologies of power and/or societal inequality which are of the macro level. It stresses the reflective assessment and critique of society and culture by applying knowledge from the social sciences and the humanities.

According to Fairclough and Wodak (1997) and van Dijk (1987) discourse has "mind control" properties as recipients of discourse "tend to accept beliefs, knowledge and opinions" from sources they perceive as "authoritative, trustworthy or credible" (i.e. the media) (van Dijk, 2008 p. 92). Recipients of discourse are also inadvertent receivers of discourse in everyday situations and in some cases do not have access or exposure to discourses that carry alternative beliefs or values. For this reason, discourse and its structures inherently define mental representations of events in peoples' minds. In simpler terms, discourse shapes what people think about and how they think about it. The purpose of critical discourse is to unpack the power relations and ideologies contained within news media, political debates and interviews that may be perceived as natural but have actually naturalised over time.

Discourse analysis is an analysis of "patterns of language across texts as well as the social and cultural contexts in which the texts occur" (Paltridge, 2006, p. 1). According to van Dijk (2008: 85) critical discourse analysis "primarily studies the way social power abuse, dominance and inequality are enacted, reproduced and resisted by text and talk in the social and political context". The structures in discourse may be analysed by observing a variety of different discursive strategies utilised in the communication.

In this study, (census=23) editorials from a corpus of 728, were analysed with a focus on 'source attribution', 'attribution of responsibility', 'advocacy' and 'attribution of solution' on the 2012 flooding. These are examples of discursive strategies which may be utilised to influence public policy on an important issue (Lee & Lin, 2006).

Methodology

- Research Design

The research design for this study is the Content analysis method, which, as Reinard (2001: 14) notes, analyses the manifest content of communication to discover the extant patterns.

In gathering data, the news content of the sampled newspapers were collated, using statistical tools like frequency, percentages, SPSS and Excel. This method readily lends itself to the major pursuit of this work which is to examine newspaper editorial discourse on flooding in Nigeria as an environmental challenge.

Population of the Study

The population of a study comprises all subjects or elements relating to a specific phenomenon which is of interest to the researcher. This study's population comprised all editorials on environmental disturbances in the Nigerian dailies. The Multi-sampling technique was used to draw the sample for this study. The first route was to select a representative sample of the newspaper population in Nigeria. There are 25 national dailies in Nigeria (www.nigeriannewspapers.com). Nwanna's (1981) formula, with 16% expected frequency value was used in selecting a sample of the newspapers:

$$n = \frac{NV(P)}{100}$$

Where:
n = sample size
NV = Population value
P = Expected frequency value (16%)

Therefore $n = \dfrac{25 * 16\%}{100}$

n = 4

Sample Size

Data was collected for all available editorials through a careful search of the editorial pages of 728 editions of the sampled newspapers. The Researcher conducted a careful examination of each editorial page using specific key words (*flood, environmental hazard or challenge, climate change, drainage,* and so forth) and any editorial that mentioned the flooding as an environmental challenge, was selected. The results of the search yielded twenty-three editorials in the months July-December 2013. Therefore, the study is based on a sample of twenty-three editorials from the four newspapers. The months of July to December were chosen because it was the period the flood started leading to its devastating peak in the months of November and December.

While the size of the sample may appear low, it is consistent with sample sizes from previously published studies that focused on editorial discourses across other subject matters; according to them, editorials on an issue usually do not have large population sizes (Golan, 2010, p.53, Pak, 2010, p.107). Research has proven that, it is usually not the largeness of the sample size that makes a sample valid but its representativeness (Asika, 2010). Wimmer and Dominick (2011, p.178) note that, a sample is representative of the population from which it is taken if the characteristics of the sample mimic those of the population. Finally, Descriptive statistics were used to measure the parameters such as, *source attribution*, *articulation of solution*, *attribution of responsibility*, *advocacy* and the *articulation of solution* in the editorials.

Sampling Techniques

A census technique was adopted by which all the editorials on environmental challenge were studied from a population of 728 editorials. A census technique meant that all the available sample were examined from the population. The editorials were identified using specific key words like: (Rainfall, flood, disaster, climate change, environmental hazard), a systematic search of the headlines and leads of editorial pages of 728 editions of the sample newspapers was done to identify contents that were relevant to the study. The search yielded 23 editorials, with contents relevant to the pursuit of this study. As the Census technique requires, all the 23 editorials were critically examined to assess the content categories. Researchers have used the census method to study editorials (Pak, 2010, p. 107; Golan, 2010, p.53). This present study performed a census of all the editorials in the *Daily Sun,* the *Vanguad*, *Thisday* and *The Guardian* newspapers in the months between July and December 2012 and ended up studying a total of twenty three editorials**.**

Measuring Instrument

The study coded for various variables relevant to the content category using the code sheet. The code guide served as an instructional or training/resource material for the coders. The code sheet and the code guide were designed to aid the ascribing of numerical figures to manifest contents on the code sheets (Please see Appendix page for the code book and code guide). Two trained coders took part in the data collection or coding process. The coders were Postgraduate students of Mass Communication who already had knowledge of the

processes involved in content analysis and the coding of manifest contents in newspapers. They were trained and instructed on what the research intended to code and what numerical values to assign to each category.

Units of Analysis

The unit of analysis for this study is the newspaper editorials which are usually found on the editorial page of newspaper and which contains the newspaper view or response to an issue of national importance.

Reliability and Validity of Instrument

To ensure reliability in the coding process and the data obtainable from such a process, careful training of coders was done. The intention was to realize a more reliable analysis as was suggested by Wimmer and Dominick (2011, p.167). The training ensured that the coders were thoroughly familiar with the study's mechanics and peculiarities and to this end, lengthy training hours were held in which sample content were examined and coded. Also, To ensure that all aspects of the construct within the research instrument was covered, taking note of clear definitions of the construct and its components, the instrument was face and content validated by the research supervisor who is a senior lecturer in the department of Mass communication and a senior lecturer in the department of Measurement and Evaluation, faculty of education. Their validating task included: examining and determining the adequacy of the language used in the coding guide (coders' instructional material) and the code sheet (the data collecting instrument) and the extent to which the coding instructions were understandable. Their observations and corrections were used to produce the final draft of the coding guide for the coders.

Inter-coder-Reliability

To collect the data from the sample, a code sheet was prepared in line with the coding guide with instructions to the coders on how to fill in the extracted data. They coded for all the aforementioned categories and entered the data into an excel file, which was transferred to an SPSS file. To ensure that the level of agreement between the coders did not occur by chance, the entries coded were subjected to Holsti's (cited in Wimmer & Dominick, 2011, p.187) inter-coder reliability test. The Holsti's inter-coder reliability test is calculated thus:

$$\text{Reliability} = \frac{2M}{N1 + N2}$$

Where:

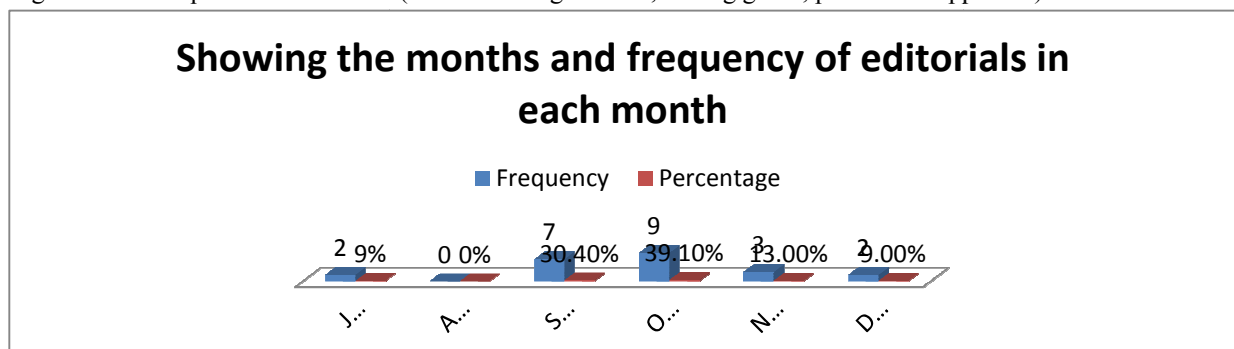M= the number of coding decisions which two coders agree.

N1 & N2= the number of coding decisions by the first and second coder respectively.

$$\text{Therefore Inter-coder reliability} = \frac{2(107)}{120+120}$$

$$= \frac{214}{240}$$

Inter-coder reliability=0.8916666667

=89.1

Data Presentation and Interpretation

Considering the research method adopted, data analysis was presented in both quantitative and qualitative formats. The quantitative findings were further discussed and integrated with the qualitative approach-the dialectical technique, which was conducted concurrently and separately and which yielded findings aligned with the quantitative results. (For the coding scheme, coding guide, please see Appendix).

Showing the months and frequency of editorials in each month

■ Frequency   ■ Percentage

2 9%   0 0%   7 30.40%   9 39.10%   3 13.00%   2 9.00%

The above table and fig shows that, from July-December 2012 within the period flood disturbances, the four Nigerian newspapers understudy, had a total of twenty three editorial discourses addressing the flood challenge. October had the highest number of editorials on the environmental challenge, with 9 editorials, representing 39.1% of the total number of editorials within the study period. This was followed by the month of September. There were a total of 7 editorials, representing 30.4%. November had 3 editorials, representing 13.0%, while July and December, had two editorials each representing 9%. In the month of August, none of the sampled newspapers addressed the flood challenge in their editorials.

Fig 2:Showing frequency of editorial discourse by each newspaper
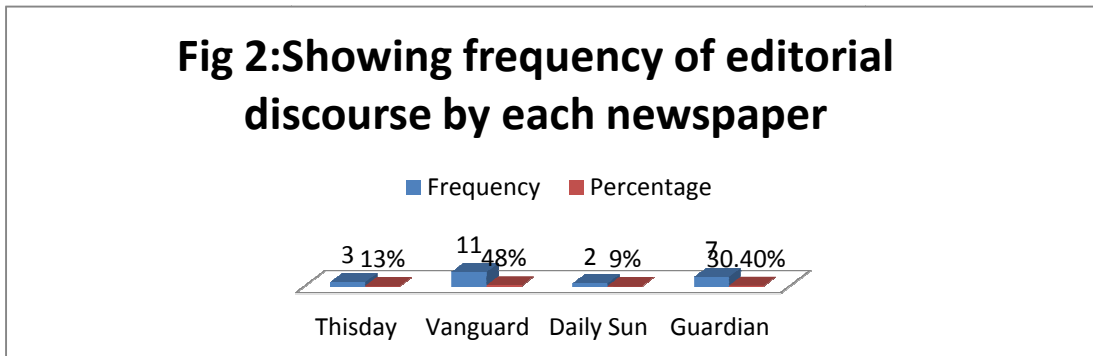
The table and fig 2 above shows that, the *Vanguard* addressed flood issue more than any other newspaper, with a frequency of 11 editorials, representing 50% of the total editorials in the newspapers within the study period. This was followed by the *Guardian n*ewspaper, which had a total of 7 editorials, representing 31.8%. *Thisday* newspaper had 3 editorials, representing 13.6%. *Daily Sun* newspaper had the least number of editorials with 2, representing 9%.

Research Question One: What was the level of source attribution in the editorial discourse?

This research question was interested in knowing the frequency or magnitude of the attribution to sources by the editorials.

Fig 3: Showing Frequency of Attributed comments in the editorialsChart Title
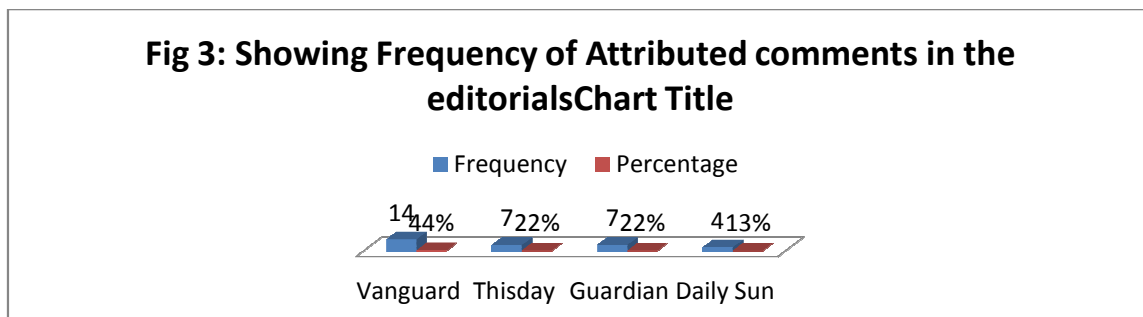
The table above shows that all four newspapers made frequent attributions to sources in their editorial comments. There were a total of 32 attributions to sources. The *Vanguard* had 14 (44%) attributions, while *Thisday* had 7 (22%). *Guardian* had 7 (22%). *Daily Sun* had the least attribution to sources with 4 (12.5%).

Research Questions Two: **What was the pattern of source attribution in the editorials.**

Fig 3: What was the pattern of source attribution in the editorials
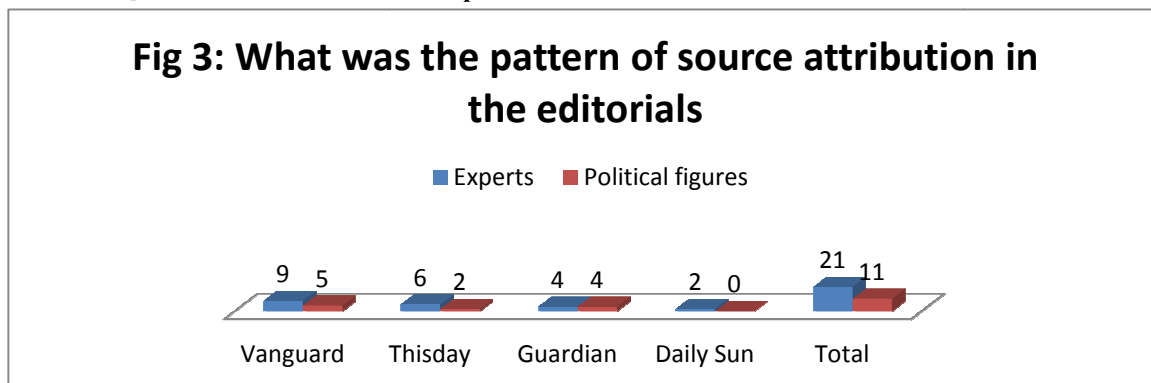
The table and figure above shows the attribution to the two categories of sources-- experts and political sources in the sampled newspapers. The *Vanguard* had 9 (28%) attributions to experts and 5 (15.62%) to

political figures. *Thisday* attributed 6 times (18.7%) to experts, and 2 (6.2%) to political figures. The Guardian had 4 (12.5%) attributions to experts and 4 (12.5%) attributions to experts. While *Daily Sun* had 2 (6.2%) and 0 (0%) attributions to political figures. In sum, there were 21 figures, representing 65.6% attributions to experts and 11, representing 34.33% attributions to political figures.

Research Question 3: To what did the editorials attribute responsibility or blame in the flooding discourse?

Fig 4: Showing how the editorials attributed blame or responsibility
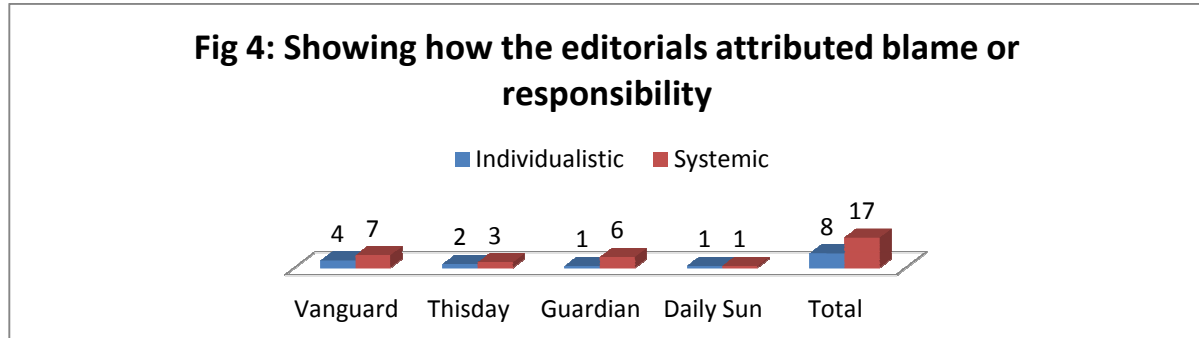
To find out how the editorial attributed responsibility in their discourse on the environmental flood issue, two categories of blame was identified-- Individualistic and Systemic. The above table and fig shows that the *Vanguard's* individualistic blame was 4 (16%), and 7 (28%) systemic blame. *Thisday* had 2 (8%) and individualistic blames, and 3 (12%) systemic blame. The *Guardian* had 1 (4%) individualistic blame, and 6 (24%) systemic blame. While the *Daily Sun* had 1 (4%) each for individualistic and systemic blames or responsibilities. In sum, the newspapers had a total of 8, representing 32% individualistic blames, and 17, representing 68% systemic blames. This shows that in the discourse, the editorials blamed the issue more on systemic lacuna.

Research Question 4: What was the direction of advocacy in the editorials?

Fig 5: Showing the direction of advocacy in the editorials
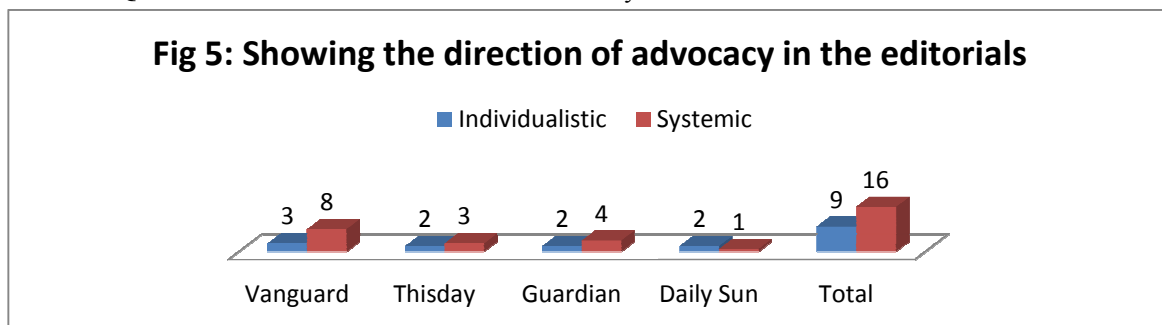
To find out the the editorials asked to amend or change their behavior the study outlined two categories: Individualistic and Systemic. The table and fig therefore shows that, the individualistic advocacy had 3 (12%) frequencies in the *Vanguard*, and 8 (32%) systemic advocacies. *Thisday* had 2 (8%) individualistic and 3 (12%) systemic advocacy. *Guardian* had 2 (8%) individualistic and 4 (16%) systemic advocacies. The *Daily Sun* had 2 (8%) individualist and 1 (4%) systemic advocacies. From this, we see that the total individualistic advocacy in the editorials in the study period was 9 (36%) individualistic advocacies, and 16 (64%) systemic advocacies. What this shows is that there was more systemic advocacies than in the editorial discourse in the study period.

Research Question 5: How did the editorials articulate the theme of solution in their discourses?

Fig 6: Showing the articulation of solution in the editorials
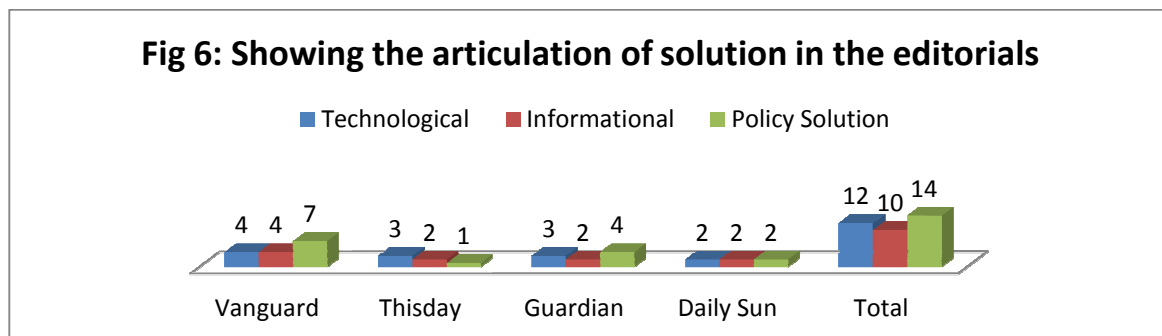
To assess how the editorials articulated solution to environmental issues in their discourses, three variables of solution were used. They include science or Technology solution, informational solution and policy

solution. As the above table show, the *Vanguard* articulated 4 (11.1%), 4 (11.1%) and 7 (19.4%) science, informational policy solutions respectively. *Thisday* newspapers articulated 3 (8.3%), 2 (5.5%) and 1, (2.7%) science informational and policy solutions respectively. The *Guardian* on the other hand, articulated 3 (8.3%), 2 (5.5%) and 4 (11.1%) science informational and policy solutions respectively. *Daily Sun*, articulated 2 (5.5%), 2 (5.5%) and 2 (5.5%) science, informational and policy solutions respectively. In sum, policy solution articulated in the editorial was 12 (33.3%). While the informational articulation was 27.7%. The policy solution was 38.8%. This shows that policy solution had the highest frequency in the editorial discourse within the study period.

Summary and Conclusion

The study was interested in knowing the editorial discursive strategies on environmental challenges in Nigeria. It specifically examined flooding in Nigeria. A period of six months (July-December 2012) served as the window period. Data was collected using quantitative and qualitative approaches. Conceptual and empirical reviews were attempted. Review of literature showed paucity in studies that examined editorial discourse on environmental health challenges. However there exists corpus literature addressing editorial opinion on other subject matters. Findings showed that the discursive strategies were manifest in all the sampled newspapers, though in differing quantities. This showed that Nigerian newspaper editorials applied the discursive strategies found in other studies in their discourse on issues pertaining to environmental challenge. Also, it was found that the editorials made references more to expert sources in their discourse. Literature had earlier established that, source attribution is a strategy for giving credibility to editorial point of view. The study also found that policy solution was predominant in the articulation of solution by the editorials. In previous studies, it was found that informational and technological solutions predominated.

In conclusion, this study has shown the pattern of discursive strategy used by editorials in Nigerian newspapers in expressing opinion on the environmental challenge caused by flooding. This finding offers insight into how editorials may direct the course of public debate and chart the path of public policy especially with regard to environmental challenges and their health implications.

Recommendations

i.   In the event of disasters of national magnitude, the editorials of Nigerian newspapers should develop constructive discourse on prevention, environmental sustainability and development to make a positive impact on legislative changes and policy directions.

ii. Nigerian newspapers should through the editorial, participate adequately in environmental sustainability programmes through environmental education. They should focus more on climate change and global warming and their devastating significance on the nation. This is more so, because, discourse on public risk perceptions of environmental challenges are seen as crucial drivers of natural hazards policies and government response.

iii. Anticipating floods before they occur allows for precautions to be taken and people to be warned so that they can be prepared in advance for flooding conditions. In this regard, early editorial discourse is therefore recommended. For example, farmers can remove animals from low-lying areas and utility services can put in place emergency provisions to re-route services if needed. Emergency services can also make provisions to have enough resources available ahead of time to respond to emergencies as they occur.

References

Akompab, D. et al (2013). Awareness of and attitudes towards heat waves within the context of climate change among a cohort of residents in Adelaide, Australia. *International Journal of Environmental Research and Public Health, 10*, 1-17; doi: 10.3390/ijerph10010001. Retrieved online: April 10, 2013.

Azlan, A; Rahim, S; Basri, H. & Hasim, M. (2012). Malaysian newspaper discourse and citizen participation. *Advances in Asian Social Science*, Vol. 8, N0. 5.

Barnes D. & DeRoche, E. (n.d). What Do newspaper editorials have to say about Teacher education programs? *School of Education, University of San Diego, Sandiego, California.*

Dole, R; Hoerling, M; Perlwitz, J; Eischeid, J; Pegion, P; Zhang, T; Quan, X; Xu, T; & Murray, D. (2011). Was there a basis for anticipating the 2010 Russian heat wave? *Geophysical Research., 38*, doi:10.1029/2010GL046582. Retrieved online: April 10, 2013.

Fairclough, N.L. & Wodak, R. (1997). Critical discourse analysis. In T.A. van Dijk (Ed.) *Discourse Studies: A Multidisciplinary Introduction. Discourse as Social Interaction* (Vol. 2, pp. 258-284). London: Sage.

Fartousi, H. (2012). A rhetorical analysis of a daily editorial: Wishing Iraq well. *Advances in Asian Social Science,* Vol. 1, N0. 2.

Gnanaseelan, J. (2011). A discourse analysis of ethnic conflict and peace in the editorials of English newspapers: A case study of Sri Lanka. *Sri Lanka Journal of Advanced Social Studies* Vol. 1, No 2.

Golan, G. (2010). Editorials, op-ed columns frame medical Marijuana debate. *Newspaper Research Journal Vol. 31, No 3.*

Halliday, M. A. K., & Hasan, R. (1989). *Language, context, and text: Aspects of language in a social-semiotic perspective* (2nd ed.). Oxford: Oxford University Press.

Hegerl, C; Zwiers, W; Braconnot, P; Gillett, P; Luo, Y; Orsini, M; Nicholls, N; Penner, E; & Stott, A. (2007). Understanding and attributing climate change. In *Climate Change 2007: The Physical Science Basis.* Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. UK : Cambridge University Press. pp. 663–746. Retrieved online: April 10, 2013.

Hynds, E. & Archibald, E. (1996). Improving editorial pages can help newspapers, communities. *Newspaper Research Journal*. Vol. 17, N0 1-2.

Karim, K. H. (2000), The Islamic peril: Media and global violence, Montreal: Black Rose Books.

Khalid, Muhammad. (July-Dec.2001). The US mass media and image of Muslim world?, *Pakistan Perspective*, 6 (2), 109-124.

Khan, A. (2007). The image of Pakistan in prestigious American newspaper editorials: A test of the media conformity theory. Htep://en.org/religion-in-pakstean. Retrieved March 2013.

Kinney, L(2008). Climate change, air quality, and human health. *American Journal of Preventive Medicine*. 2008 Nov;35(5):459-67.

Lawrence, G. (2004). Framing obesity: The evolution of news discourse on a public health issue. *Press and Politics,* 9 (3): 56-75.

Lee, F & Lin, A. (2006). Newspaper editorial discourse and the politics of self-censorship in Hong Kong. *Discourse Society,* 2006 17: 331.

Meltzer, K. (2007). Newspaper editorial boards and the practice of endorsing candidates for political office in the United States. *Journalism 8*: (83).

*Nigerian Metrological Agency (*NIMET) (2012). Environmental factors are the cause of flooding.

Noji E, Lee C. (2005). Disaster preparedness. In: Frumpkin H. *Environmental health, from global to local*, 1st edition. San Francisco: Jossey-Bass.

O'Connor, E. and John E. (2004). *The world's largest floods, past and present: Their causes and magnitudes* [Circular 1254]. Washington, D.C.: U.S. Department of the Interior, U.S. Geological Survey Retrieved April 23, 2013.

Odoemelam, C; Ebeze, V; Anyadike, D. & Okorom, M. (2013). Rhetorical analysis of development discourse in newspaper editorials in Nigeria. *International Journal of Advanced Research in Social Engineering & Development Strategies*. Vol. 1 N0. 1 Feb., 2013. Pages 46-53.

Odoemelam, C; Okeibunor, N. & Adibe K. (2013). Visual analysis of frames in newspaper coverage of flood disasters in Nigeria. Accepted for Publication in, *Journal of International Communication, (2013 Edition)*. Nsukka: CSF.

Pak, C. (2010). According to which source? An analysis of the use of attribution in American, Spanish and Mexican newspapers. *Global Business Language*. Vol 2, Issue 1.

Poumadere, M.; Mays, C.; le Mer, S.; Blong, R. (2005). The 2003 heat wave in France: Dangerous climate change here and now. *Journal of Risk Analysis,* 2005, 25, 1483–1494.

Powell, W. (2009). Identifying land use/land cover (LULC): Using national agriculture magery program (NAIP) data as a hydrologic model input for local flood plain management. *Applied Research Project*. Texas State University–San Marcos Retrieved May 3, 2013.

Ryan, M. (2004). Framing the war against terrorism: US newspaper editorials and military actions in Afaghnistan. *International Journal for Communication Studies*. Vol. 66 (5), 363-392.

Stephen Bratkovich, Lisa Burban, et al., (1993). "Flooding and its effects on trees", USDA Forest Service, Northeastern Area State and Private Forestry, St. Paul, MN, September. Retrieved March 5, 2013.

Takahashi, B. (2008). Framing climate change: A comparative analysis of a US and a Canadian newspaper. IJSC 3 (2008): 152 -170.

Van Dijk, T. A. (2008). *Discourse and power*. Hampshire: Palgrave Macmillan.

Wimmer, R. and Dominick, J. (2011). *Mass media research: An introduction.* Wadsworth: Cengage Learning.

CALL FOR PAPERS