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The Effects of Framing on Oil Pollution as Covered by Print Media: A Case Study of Nigerian Newspapers

Abstract

Incidents of oil pollution has become a reoccurring decimal over the last twenty decades in most countries of the world. The controversy over who is responsible for the massive oil pollution witnessed in some oil-producing countries globally has amplified tensions between significant stakeholders in those countries. The issue of oil pollution in Nigeria and Ghana, for instance, has caused ecosystem degradation, the devastation of means of livelihood of local communities, and the death of aquatic organisms such as fish. Our study investigated the effects of the five news frames identified by Semetko & Valkenburg (2000); responsibility, economic consequences, conflict, human interest, and morality. Through content analysis, our study analyzed 531 newspaper stories on oil pollution in Nigeria's Niger-Delta region from 2014-2018. The results indicated that overall, the effects of the human interest frame usage were more prevalent in *The Daily Sun* newspaper than the other two papers, *The Guardian* and *The Punch*, within the study period. This was followed by economic consequences, responsibility, conflict, and morality frames. Also, the study revealed that the effects of the differences in the frequency of using the frames in the coverage of oil pollution in the three selected papers varied significantly.

Keywords: Framing, Newspapers, Oil pollution, Multinational Oil Companies.

Introduction

Accounts in literature have shown that the effects of oil pollution have generated both local and international outrage and condemnation over many decades. The anger and frustrations were related to the constant destruction of the livelihood and the health effects of the pollution of the natural environment of the oil-bearing communities by Multinational Oil Companies (MOCs) operating in the affected countries (Chen et al., 2019; Oghenetega, Ojengbede, & Ana, 2020). Therefore, the long-term impact of this scenario has caused considerable health and economic consequences as the environment plays an essential role in both health and economic outcomes (Bodo & Gimah, 2019; Onyena & Sam, 2020). For ex-

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ample, the above observations in Nigeria portray a scenario of the country's innumerable economic, social, and health impacts and effects of oil pollution on the host communities of oil companies. However, powerful actors in the oil industry and some government officials have failed to prevent and clean-up the oil pollution. This negligence has resulted in decades of contamination of sources of sustenance all over the region.

As Bodo (2019) argues, oil pollution and other environmental degradations are world issues as any air pollution into the atmosphere in any part of the world would contribute to global pollution and further aggravate nature. Thus, the discharge of crude oil into the environment directly or indirectly threatens the local population's overall socioeconomic and health. Environmentalists (Azlan Abas, 2019; Rodrigues, 2018; Steven, 2019) observed that the rise in oil pollution and other forms of environmental anomalies, such as climate change and global warming, resulted in a "global environmental regime" that manifests in widespread hunger, food shortages, and adverse health effects particularly among people living in oil-polluted communities. Thus, the death of numerous fish species and the collapse of the local economy, and people's adverse health impacts are another significant indicator of environmental degradation caused by oil pollution. Oil pollution is characterized as ecological hazards affecting all aquatic living organisms, such as fishes, lobsters, and crabs (Karlapudi et al., 2018; Kostianaia et al., 2020).

Over the last ten decades, Nigeria and Ghana reported 18,151 and 9,090 oil pollution incidents, respectively (Egbon & Mgbame, 2020; Nwadinigwe, 2020). This condition has further endangered the well-being and existence of peasant farmers in both countries and throughout the African continent. There is also no doubt that oil pollution from the oil industry, located mainly in the Niger Delta region, has done much harm to the area (Ogundejia, 2020; Mba et al., 2019; Nwadinigwe, 2020). Furthermore, there is strong evidence that oil pollution and gas flaring have a detrimental effect on the region's population (Ansari, Hasanshahian, & Ravan, 2018; Johnston, Lim, & Roh, 2019). This situation has increased the vulnerability of households, thereby affecting their wellbeing adversely, with a threat to the region's future means of sustenance, while government response and remediation measures to preserve the region's ecosystem have not been very successful (Okafor-Yarwood, 2018).

Consequently, the study of framing on oil pollution in Nigeria is essential to understand the effects of oil pollution messages on the oil-bearing communities that attribute blame, health impacts, conflicts, or economic collapse to oil pollution in Nigeria's Niger-Delta region. It is also crucial to study to understand the effects of frequency of the coverage of oil pollution among the chosen newspapers as relevant stakeholders, such as the MOCs, receive reliable information through news framing that could help to preserve a better environment for everyone (Adebayo & Dada, 2008; Adekola et al., 2017).

Several studies have shown that there is no such thing as unframed information as members of the public depends on the frame to make sense of an issue (Nabi et al., 2020; Nisbet et al., 2013; Scheufele, 2018; von Sikorski & Matthes, 2020). Thus, journalists use frames to create appealing and exciting news reports, policymakers use frames to define policy options and reach decisions, and experts use frames to simplify technical details and make them persuasive (Busby et al., 2018; Shapiro, 2019; Tenenboim-Weinblatt & Baden, 2018). According to framing effects, a communicator focuses on a subset of potentially relevant information (Van Duyn, 2019; Kaiser, 2020). In essence, media frames provide notions and interpretative storylines that help the public define societal issues, understand who is responsible for them, and identify what needs to be done about them. Exposure to media frames that emphasizes

certain features or consequences of social problems or issue may lead individuals to privilege those considerations by forming an overall opinion on the subject (Shapiro, 2019).

Furthermore, framing theory suggests that exposure to a single frame in isolation often shifts opinions to the frame (Peng, 2019; Stafford, 2019). For example, exposure to a frame highlighting the economic and health costs of oil pollution in Nigeria's Niger-Delta region would reduce support for more oil exploration activities in the area, vice versa for positive frames emphasizing economic or health benefits of oil exploration. Buttressing this point Busby et al. (2018) and Chong & Druckman (2010) argued that when directionally rival frames of equivalent intensity are pitted against one another in a competitive frame context, they often cancel each other out, leaving opinions unmoved. However, where frames of different intensities appear in a competition, more robust frames dominate the weaker frame, shifting ideas towards the more robust frame (D'Angelo et al., 2019; Lecheler & de Vreese, 2018; McIntyre, 2019). In this situation, frames influence individuals' attributions of responsibility, policy thoughts, and issue preferences, even as people blend news frames with their own knowledge and experiences while discussing social problems (Gitlin, 2003; Goffman, 1974; Lecheler & de Vreese, 2018; McIntyre, 2020; Tuchman, 1978).

Approaches Used in News Framing by the Print Media

There are two main approaches used by media scholars to frame news via content or qualitative analysis (Semetko & Valkenburg, 2000). The first approach is the inductive approach. An inductive process involves analyzing a news story with an open view, trying to reveal possible frames. The advantage of this study approach is that it guarantees no frame will go unnoticed (Ileri, 2019; Walker, Godley, & Nuno, 2019). However, it is time-consuming, challenging to replicate, and often dependent on a limited study.

The second approach is the deductive method, whereby frames are extracted theoretically from literature and coded in standard content analysis. The benefits of this method are; it is replicable, can handle broad samples, and easily discern variations between media and within media. This approach has a series of standard content analytic criteria to measure the five conventional frames often seen in news stories (Semetko & Valkenburg, 2000). The first frame coded deductively is responsibility, which means issues are framed so that their commitment is on organizations, individuals, or governments. The second is the economic consequences covering an issue or event in terms of how such issue affects people's lives, works, and livelihoods, while the third news approach is the conflict, which emphasizes disagreements between parties or individuals and stresses the points of divergence between the opponents. The fourth frame is the human interest, which offers a personal and emotional perspective in presenting issues or problems to draw both national and international attention. Finally, the fifth frame is morality, which gives news stories as issues concerning God, religious beliefs, and moral perspectives. Based on the above premise, this study adopted the deductive approach as developed by Semetko and Valkenburg (2000). Numerous researchers have applied the deductive approach to study news framing analysis (Naoroz, 2019; Nwabueze, 2019; Hansen, 2020; Kim & Wanta, 2018; Spradlin, 2020).

The research questions that guided our deductive frame analysis of the oil pollution in the Nigerian media were:

RQ1. What are the kinds of frames used in the coverage of oil pollution in Nigeria's Niger-Delta among each the selected newspaper?

RQ2. What are the differences in the frequency of frames in the coverage of oil pollution in the Niger-Delta region among the three selected newspapers?

Newspapers in developed and developing countries have often used the deductive method to frame the effects of oil pollution and other environmental concerns in their countries. Wood's (2019) content analysis of Canadian newspaper articles, for example, showed that frames that used economic prosperity and responsibility to portray the Keystone oil pipeline between the U.S. and Canada dominated over contents that framed the effects of the Keystone oil pipeline to health impacts and destructions of the environment. Similarly, in Kenya, research on the effects of framing on oil pollution shows that the *Daily Nation* and *The Standard* newspapers framed the effects of oil pollution in the country using attribution of responsibility, conflict, economic consequences, energy security, human interest, and environmental concerns to portray the rampant oil pollution ravaging their environment (Irer, 2019). Supporting this point Ndinojuo (2020) examination of the effects of framing oil pollution and biodegradable issues in online newspapers showed that economic costs dominated coverage in *The Punch* and *Premium Times*, compared to the *Daily Post* and *Leadership* despite the destruction of the means of livelihood of oil-bearing communities due to oil exploration activities. Studies carried out in Europe used a deductive news approach to study how the German, Dutch and Swedish newspapers covered environmental issues such as climate change (Berglez & Lidskog, 2019; Creutzig et al., 2018; Hulme et al., 2018; von Zabern & Tulloch, 2020).

Studies such as the ones mentioned here show that the deductive news approach is an accessible news framing analysis within the media circle (Muncie, 2020; Walter & Ophir, 2019). Depending on the interests and importance of the news topic to the audience, researchers use different news approaches. In other words, journalists use responsibility, economic consequences, conflict, human interest, morality, and sometimes emerging frames to report national and international issues such as oil pollution and other global affairs (Minio, 2019; Sarah Liu, 2019; Semetko & Valkenburg, 2000).

Methodology

We used the content analysis method to carry out the research. This study is limited to three Nigerian newspapers: *The Daily Sun*, *The Guardian*, and *The Punch*. The selection of these three newspapers was made based on multiple reasons. First, they have a wider circulation. *The Daily Sun* newspaper has 130,000 copies distributed daily throughout Nigeria; *The Guardian* has 105,000 copies in circulation daily while *The Punch* has 80,000 copies circulated in Nigeria daily (Ayesimoju & Awoniyi, 2012). Secondly, they maintain correspondence offices in all the thirty-six states of the country. Thirdly, they are readily available. Fourthly, they cover different kinds of national and international issues, and lastly, their ownership is ethnically-based. For instance, the owner of *The Daily Sun* newspaper is from the South-East geopolitical region of the country, and *The Guardian* publisher is from the South-South, while *The Punch* owner is from the South-West.

We content analyzed the corpus for a 5-year period, from January 01, 2014 to December 31, 2018. This extensive time coverage of the study was due to increases in oil pollution issues in the country. Another reason was the constant protest and sometimes conflicts between youths in the oil-bearing communities and the MOCs, and government security agents due to oil pollution in the region. The corpus of this study, as shown in Figure 1 below, consists of 720 articles of the three papers sampled purposively. A purposive sampling technique was used to illustrate the newspaper sample for this study from the three selected newspapers, namely, *The Daily Sun*, *The Guardian*, and *The Punch*. According to Maxwell (2019) purposive sampling is a technique in which the researchers deliberately select specific data to provide important information or details to their research. In other words, purpose sampling is a non-random data collection technique, and it enables researchers to include data or participants in a study since they think they deserve inclusion. Hence, every Monday-Friday was chosen bi-weekly as a sample because they are the week when the selected three newspapers publish environmental news. Therefore, every page of *The Daily Sun*, *The Guardian*, and *The Punch* newspapers were examined by the researchers to observe a report on oil pollution within the period (2014-2018) of this study. After eliminating non-oil pollution stories, the researchers selected a total of 531 articles from the three newspapers for analysis because they contained oil pollution news stories only. Out of the 531 articles of the papers selected for review, *The Daily Sun* had 247 articles, *The Guardian* 103, and *The Punch* 181.

Figure 1. News Story Evaluation Procedure

The unit of analysis was the individual news stories on oil pollution published by the newspapers. Environmental pollution stories from sources such as editorials, feature articles, and opinion stories were not part of the study. The reasons for not including them were as follows: editorials are written by news editors to show the media organizations' position on an issue; features articles are a form of storytelling, and opinion stories are from individuals outside of the media. Moreover, it was observed that each news story contained more than one news frame, with some having as many as three or four news frames. All the news frames were sorted out by the researchers to identify which newspaper used the most news approach.

Coding procedure

During the preliminary coding, special attention was paid to oil pollution news stories. This was followed by an initial coding framework created for easy classification of the news stories based on the study purpose, approach and findings. The coders' regularly reassessed the coding procedure as the analysis progresses. Because of the content analysis method for this study, the data obtained from each newspaper were periodically compared for reanalysis, as suggested by Krippendorff (2011). Two trained coders were engaged by the researchers to enhance the consistency, accuracy, and validity of the findings during the coding process (Creswell & Creswell, 2017). The objective of the coding was to identify news frame types used by each of the sampled papers in the coverage of oil pollution. All the coders agreed on the final result achieved.

Framing Measures

To study the effects of oil pollution, we adopted a similar approach to the one used by Semetko & Valkenburg (2000). We record the number of times oil pollution is captured in individual frames. Furthermore, we designed a series of 19 questions for a yes (1) or no (0) response from the coder. Each question was designed to quantify one of five news frames: Responsibility, Economic Consequences, Conflict, Human Interest, and Morality. Examples of the questions are: "Does the story suggest that any level (s) of government (Nigeria) was involved?" (Responsibility), "Does the story mention financial losses or gains, now or in the future?" (Economic Consequences), "Does the story emphasize how individuals and groups are affected by the issue or problem?" (Conflict), "Does the story emphasize how individuals and groups are affected by the issue or problem?" (Human Interest), and "Does the story contain any moral message?" (Morality). For example, if a news story mentions costs or expenses involved in the cleaning of an oil spill in Nigeria's Niger-Delta region, it shows the presence of economic consequences frame. Entman (1993, p. 52) remarked that frames in the news could be observed and identified "by the presence or absence of certain keywords, stocked phrases, stereotyped images, sources of information and sentences that provide thematically reinforcing clusters of facts or judgments".

We measured the possibility of these questions to groups based on similarities to the extent that it shows inherent dimensions. To investigate each frame, we adopted a minimum of

three questions. However, more items were added for some frames to support the effects of the nature of our method.

Scaling of News Frames

We implemented a principal component analysis with varimax rotation on the 19 framing questions to measure each question's level of relationship with the underlying dimensions. This paper's research produced a factor solution from the framing questions grouped into four different frames: Responsibility, Economic Consequences, Conflict, and Human Interest. We included only items with a factor loading above .50 in the scales, a common approach used by researchers. Table 1 below shows three items that did not meet this threshold. Thus, one item measuring responsibility frame ("Does the story suggest a solution"?), and two for economic consequences ("Does the story mention financial losses or gains, now or in the future"?, "Does the story mention the economic consequences of pursuing or not pursuing a course of action"?).

Hence, as shown in Table 1 below, these items are empirically distant from the remaining items loaded on the same factor. Besides, a high score on the scale of responsibility frame shows that the story indicated that some government, individuals, or groups are responsible for problems of oil pollution in Nigeria's Niger-Delta region. Also, a high score on the scale of economic consequences frame reveals that the story mentioned the effects of oil pollution as financial losses, gains, and livelihood levels of the people affected by constant oil pollution in the region. Similarly, a high score on the conflict scale depicts the effects as disagreements or misunderstandings between parties, individuals, groups, countries, or more sides of a problem, such as the numerous oil pollution sites scattered all over Nigeria's Niger-Delta. Simultaneously, a high score on the human interest scale means that the effects of story emphasized emotional stress or added human face, angle, or personal details to the issue. Lastly, a high score on the morality scale shows that the news report referred to God, religion, or contains moral messages.

Table 1. Varimax-Rotated Component Matrix for the Loaded Framing Questions

Framing Questions	Components			
	1 Responsibility	2 Economic Consequences	3 Conflict	4 Human Interest
Responsibility				
Does the story suggest that some level (s) of government (Nigeria) is responsible for the issue?	.868	.446	.210	.053
Does the story suggest that any level (s) of government (Nigeria) was involved?	.759	.560	.120	.310
Does the story suggest that an individual, a group in society (host communities or oil companies), is responsible for the issue or problem?	.594	.736	.318	.065
Does the story suggest the problem requires urgent attention?	.584	.700	.396	.344
Does the story suggest a solution (s)?	.233	.768	.198	.564
Economic Consequences				
Does the story mention financial losses or gains, now or in the future?	.942	.188	.140	.238
Does the story refer to the economic consequences of pursuing or not pursuing a course of action?	-.047	.183	.365	.912
Does the story mention the costs or degree of expenses involved?	.968	.063	.195	.144
Conflict				
Does the story refer to winners or losers?	.129	.224	.914	.311
Does the story refer to two sides or more than two sides of the problem or issue?	.223	.111	.869	.428
Does the story reflect disagreement between parties, individuals, groups, or countries?	.313	.803	.931	.322
Does one party, individuals, groups, or country does reproach another?	.353	.826	.866	.244
Human Interest				
Does the story provide a personal example or "human face" on the issues or problems?	.259	.213	.112	.935
Does the story employ adjectives or personal vignettes that generate feelings of outrage, empathy, caring, or sympathy, or compassion?	.288	.221	.501	.786
Does the story go into the private or personal lives of actors?	.092	.680	-.064	.725
Does the story emphasize how individuals and groups are affected by the issue or problem?	.308	.394	.866	.073

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 4 iterations.

Results

To understand the effects of the framing of oil pollution, it is essential to determine the frames used by each of the sampled newspapers to cover oil pollution in Nigeria. The three selected newspapers focused on specific issues in the Niger-Delta region, such as oil pollution whenever it occurred.

Types of News Frames Used in Reporting Oil Pollution

Our first research question asked about the effects of news frames used in oil pollution coverage among the selected newspapers. To explore the kinds of frames used in reporting oil pollution and its effects, we conducted a Chi-square test analysis. As shown in Table 2 below, the types of frames used in *The Daily Sun* are responsibility (n = 692), economic consequences (n = 934), conflict (n = 505), human interest (n = 961), and morality (n = 2) within the five year study period. *The Guardian* used responsibility (n = 508), economic consequences (n = 542), conflict (n = 501), human interest (n = 767), and morality (n = 1) in contrast to *The Punch* with responsibility (n = 744), economic consequences (n = 407), conflict (n = 596), human interest (n = 529), and morality (n = 1). Across the three selected newspapers, as indicated in Table 2 below, *The Daily Sun* used the Human interest and economic consequences more than the other two newspapers. *The Guardian* used more economic consequences and human interest than *The Punch*, whereas *The Punch* used responsibility and conflict more than *The Daily Sun* and *The Guardian* newspapers. It had to be noted; however, that our study found that morality frame was less used by the three selected newspapers (*The Daily Sun* n = 2, *The Guardian* n = 1, *The Punch* n = 1) in their coverage of oil pollution within the study period. These association effects showed that in the overall sample of the three selected newspapers, the human interest frame was mostly used, followed by the economic consequences, responsibility, conflict, and morality, respectively.

Table 2. Breakdown of the Kinds of Frames Used in Reporting Oil Pollution in *The Daily Sun*, *The Guardian*, and *The Punch* newspapers from 2014–2018

Newspapers	Responsibility	Economic Consequences	Conflict	Human Interest	Morality
<i>The Daily Sun</i>	692	934	505	961	2
<i>The Guardian</i>	508	542	501	767	1
<i>The Punch</i>	744	407	596	529	1
Total	1944	1883	1602	2257	4

Differences in the Frequency of Coverage of Oil Pollution

Our second research question asked whether there was any difference in the frequency of frame usage in oil pollution coverage in Nigeria's Niger-Delta region. Of all the five news frames developed by Semetko and Valkenburg sampled, the human interest frame was frequently used in *The Daily Sun* with 42.6%. Similarly, across the three selected newspapers, the economic consequences frame was used more frequently by journalists in the coverage of oil pollution in the Niger-Delta region with 49.6%. In contrast, *The Punch* newspaper fre-

quently used the responsibility frame with 38.3%, and the conflict with 37.2% than the other two papers. It is important to note, however, that the morality frame was less frequently used among the selected three newspapers. The interaction effects between the three chosen newspapers and oil pollution for human interest meant that the difference between news stories in *The Daily Sun* in the use of human interest was more extensive than in the other newspapers. However, the frequency pattern was the same as all the selected newspapers framed oil pollution news stories in the Niger-Delta region of Nigeria as responsibility, economic consequences, conflict, and human interest. For the least-used morality frame, the frequency pattern did not deviate significantly from the overall sample results. Therefore, our study presented the framing results for oil pollution across the three selected newspapers.

Table 3. Differences in the Frequency of Frames Used in the Coverage of Oil Pollution.

Frames * Newspapers Crosstabulation						
			Newspapers			Total
			The Daily Sun	The Guardian	The Punch	
Frames	Responsibility	Count	692	508	744	1944
		% within Frames	35.6%	26.1%	38.3%	100.0%
		% within Newspapers	22.4%	21.9%	32.7%	25.3%
		% of Total	9.0%	6.6%	9.7%	25.3%
	Economic Consequences	Count	934	542	407	1883
		% within Frames	49.6%	28.8%	21.6%	100.0%
		% within Newspapers	30.2%	23.4%	17.9%	24.5%
		% of Total	12.1%	7.0%	5.3%	24.5%
	Conflict	Count	505	501	596	1602
		% within Frames	31.5%	31.3%	37.2%	100.0%
		% within Newspapers	16.3%	21.6%	26.2%	20.8%
		% of Total	6.6%	6.5%	7.8%	20.8%
	Human Interest	Count	961	767	529	2257
		% within Frames	42.6%	34.0%	23.4%	100.0%
		% within Newspapers	31.1%	33.1%	23.2%	29.3%
		% of Total	12.5%	10.0%	6.9%	29.3%
	Morality	Count	2	1	1	4
		% within Frames	50.0%	25.0%	25.0%	100.0%
		% within Newspapers	0.1%	0.0%	0.0%	0.1%
		% of Total	0.0%	0.0%	0.0%	0.1%
Total		Count	3094	2319	2277	7690
		% within Frames	40.2%	30.2%	29.6%	100.0%
		% within Newspapers	100.0%	100.0%	100.0%	100.0%
		% of Total	40.2%	30.2%	29.6%	100.0%

Table 4 below summarizes the mean and standard deviation of the frames. As seen in the table, the Human Interest frame has the largest mean of 752.33, followed by Responsibility 648.00. The Economic Consequences has a mean value of 627.67, and the Morality frame recorded the lowest mean of 1.33. In the three selected newspapers, the more human interest, economic consequences, responsibility, and conflict frames used, the more attention paid to the oil companies operating in the Niger-Delta region of Nigeria by the oil-bearing communities.

Table 4. Descriptive Analysis of the Frames in all The Newspapers

	Mean	Std. Deviation
Responsibility	648.00	124.000
EconomicConsequences	627.67	273.745
Conflict	534.00	53.731
Human Interest	752.33	216.373
Morality	1.33	.577

Discussion

The problems associated with oil pollution is not a new phenomenon. Our study mainly focused on understanding the effects of framing on oil pollution as covered by the selected three newspapers in Nigeria’s Niger-Delta region using the five news frames developed by Semetko & Valkenburg (2000). Such frames that delegate responsibility for a social problem to various actors may have a large and powerful effect on individual support for particular policies to fix the problem (Busby et al., 2018; Malhotra & Kuo, 2008; Shapiro & Bolsen, 2019). Firstly, frames that attribute responsibility for the oil pollution in the Niger-Delta region, either to the government, oil companies, or group of individuals, for instance, have been shown to affect the oil-bearing communities’ beliefs about the sincerity and intentions of the polluters to engage in responsible oil explorations activities in their region. In other words, responsibility frames attributed to oil companies operating in the Niger-Delta, such as Shell, Chevron, Agip, and ExxonMobil, have reduced the oil-producing communities’ willingness to participate in meaningful and collective actions to curtail the issue of oil pollution in the region. Since the people of Nigeria’s Niger-Delta region are frequently exposed to news reports that highlight multinational oil companies as responsible for the oil pollution in their region, real solutions to the problem are left in the hands of the oil companies.

We also explored the effects of exposure to frames that highlight human interest, economic consequences, conflicts, and questions the moral conscience of the polluters, shape oil-bearing communities’ views about oil pollution in their domain. Framing theory acknowledges that exposure to a given frame often influences opinions or behavior in the direction of the frame. For example, a framing emphasizing the human interest, lack of morality on environmental polluters in the Niger-Delta would ultimately discourage support for oil exploration as a source of energy and livelihood. In the years 2014 and 2015, our study found that the frequency of frames used in the coverage of news on oil pollution differed significantly between the three selected newspapers. *The Daily Sun* newspaper, for instance, used more of all the five news frames of responsibility, economic consequences, conflict, human interest, and morality in the coverage of news on oil pollution than *The Guardian* and *The Punch*

newspapers within the period of study. In other words, “journalists and news editors did put some empathy and discuss the effects of oil pollution in the affected oil-bearing communities in their reporting”. To authenticate the credibility of this statement, the frames included reports of words used in “the three selected newspapers’ news articles.” The exact expressions for the human interest effects of oil pollution in the three newspapers are as follows: “*Three Killed in Oil Pipeline Explosion. Three oil workers killed in an oil explosion in Nigeria’s Niger-Delta region have become the latest victims of an oil industry*”. (*The Daily Sun*, March 31, 2016).

For a third frame, the effects of the economic consequences of oil pollution to the oil-bearing communities are in the form of the destruction of means of livelihood of the people, which invokes the theories of financial losses as a result of oil pollution. The economic effects cum costs of oil pollution are much higher for oil-producing communities of the Niger-Delta region than those of other areas of the country. The effects of oil pollution in the region are clearly stated in the selected newspapers. The exact words for the economic consequences frame are as follows: “*Oil spill wreaks havoc in Ogoni. A major environmental disaster occurred yesterday in Ogoni when an oil well-head that belonged to the Shell Petroleum Development Company (SPDC) burst, polluting water, creeks, and vast expanses of farmland*”. (*The Guardian*, February 20, 2016).

The fourth frame uses conflict to depict the effects of oil pollution in the Niger-Delta by the constant disagreements between oil companies, government, oil-bearing communities, militant activities, and insecurity in the region. The clarifying statements in the conflict frames among the three newspapers states that “effects of oil pollution are the main causes of conflicts in the Niger-Delta region. The following conflict frames are published in the three newspapers: “*Shell in a new battle over oil pollution. Oil giant, Royal Dutch Shell, is facing new environmental claims in the London High Court from two Nigerian communities*”. (*The Punch*, March 03, 2014).

The fifth and final frame emphasis lack of moral consciousness on the part of oil companies while polluting the Niger-Delta environment daily. The effects of the morality frame are as follows: “*Shell confirms fresh oil spillage in Delta. Our community will go to court if adequate compensation is not paid within a short period, as we have demanded, and God willing, we will win big in court. The evidence is clear, Unagha said*”. (*The Daily Sun*, May 24, 2014).

Conclusion

There is renewed interest and awareness to understand the effects of framing and reduced oil pollution to promote environmental sustainability by the print media. Coverage of oil pollution and other ecological problems globally and in Nigeria by the print media is no longer a new phenomenon. Research on the effects of framing oil pollution and the kinds of frames used in its coverage remains scanty (Kessler et al., 2019; Parviainen et al., 2019). This is one of the first attempts to explore the effects of framing and the kinds of frames used in the coverage of oil pollution in Nigeria by the print media. Our study sought to explain precisely how different types of frames used by the selected newspapers impact the perceptions of the oil-bearing communities of Nigeria’s Niger-Delta region about oil pollution and how the frequency of the reports on oil pollution shaped the agitation for better environmental management practices from the relevant stakeholders in the region. The findings of our research reinforce

the power of framing as a mechanism for changing the publics' views about the need for multinational oil companies and the government of Nigeria to take action to address the problems of oil pollution in the country. Research question 1, which dwelt on the kinds of frames used by the selected newspapers in reporting oil pollution, highlights the inadequacy of existing national strategy by both the government and oil companies to address the increased dissatisfaction from the oil-bearing communities against the oil companies.

Additionally, blaming oil giants like Shell, Agip, Chevron, and ExxonMobil for the oil pollution problem in the Niger-Delta region decreases the oil-bearing communities' satisfaction with the efforts of the stakeholders to minimize oil pollution in the area. In research question 2, our study showed that the frequency of oil pollution coverage could shift oil-bearing communities' support for further oil exploration activities in the region. For instance, news frames emphasizing negative health consequences could turn support away from oil exploration activities in the area. In contrast, exposure to frames highlighting the relative economic benefits could increase support for oil exploration. Considerations for the negative health impacts, economic consequences, and conflicts between oil-bearing communities' of the Niger-Delta and the government overwhelm the perceived economic benefits of oil exploration in the country. Of course, this is only one study, and much more work is needed to understand how frames are emphasizing casual responsibility for oil pollution, as well as the economic costs and health impacts of oil pollution, shape public views among countries. In all, this is about the beginning of shifting focus about Africa and Nigeria in particular to improve cross-national differences associated with oil exploration activities.

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