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Patterns of Broadcast Media Reportage of Climate Change Issues in Lagos, Nigeria from 2016 to 2018: An Evaluative Study

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Abstract

Climate change is a global environmental problem that stares us all in the face. The need to combat it necessitated this study which evaluated the way (patterns) broadcast media in Lagos, Nigeria reported issues of climate change from 2016 to 2018. The study adopted qualitative research method which analysed news bulletins, jingles, documentaries, paid announcements and other special programmes on issues of climate change which were aired by the selected broadcast media from 2016 to 2018. The study found that the selected broadcast media in Lagos, Nigeria decreased their frequency of reportage of climate change issues in the period under study. The study equally revealed that the selected broadcast media in Lagos, Nigeria again reduced time allocated in minutes for the reportage of climate change issues within the period of the study. The study also reveals that there were similarities in the pattern of reportage of climate change issue from 2016 to 2018. The study further indicated that the different broadcast media had significant degrees of differences in time allocated for reporting climate change issues from 2016 to 2018. The study therefore recommended that broadcast media in Lagos, Nigeria should consistently increase their reportage of issues of climate change in the areas of frequency of reportage and time allocation in minutes. Doing this will set the right agenda that will achieve Clause 3 of Goal 13 of the United Nations' (UN) Sustainable Development Goals (SDGs) in Lagos and in Nigeria. The study also recommended that public broadcast media should stop paying lip service to issues of climate change because doing so will be to the peril of the governments and their people.

Keywords: Broadcast Media, Broadcast Media Reportage, Climate Change, Climate Change Issues, Media.

INTRODUCTION

Climate change is an environmental problem that has become a global monster that stares us all in the face. Individuals, organizations, nations and regions are all feeling the effects of climate change. Economies, homes and lives are lost in no small measures to climate change. Because of its seriousness and severity, climate change has generated and continued to generate national, regional and international discourse for decades. It has not only taken front burner in political, social and economic gatherings, it has also necessitated numerous summits, conferences, conventions and declarations with individuals, organizations and nations lending their voices to the discourse. Sayne (2011) argues that if climate challenges are not addressed, they could throw stressed resources such as land and water into shorter supply. Corroborating Sayne's (2011) argument,

former President of the United States (US), Barack Obama, noted that the issue of climate change is one that if we ignore, it is at our own peril. Similarly, the United Nations (UN), the biggest global organisation, lent its voice to climate change through its global goals called "Sustainable Development Goals (SDGs)". The UN's SDGs aim to end poverty, 'protect the planet' and ensure prosperity for everyone by the year 2030 (United Nations, 2015). Goal 13 of the SDGs specifically dwelt on and emphasised on taking urgent action to combat climate change and its impact. Clause 3 of Goal 13 of the SDGs states that in order to take urgent action to combat climate change and its impacts, there must be improved education, awareness-raising as well as human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning (www.un.org).

Sadly, climate change is the handiwork of humans' irresponsible lifestyle. For whatever reason, humans have embarked upon the random destruction of nature and its resources. There are evidences that human activities are destroying the climate significantly. Scientists are more assertive now than ever before positing that humans have interfered with the climate and that further human interference with the climate will cause more damage. Schmidta, Ivanova and Schaferb (2013) also opine that climate change is caused by various human activities around the world with the greenhouse gases produced by these activities contributing to an increase in average temperature.

Clause 3 of Goal 13 of the SDGs earlier cited indicates that in order to take urgent action to combat climate change and its impacts, there must be improved education, awareness-raising as well as human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning (www.un.org). The next question is: how can this Clause 3 of Goal 13 be achieved? The answer is through the media. The media and particularly mass media are critical stakeholders in mitigating climate change. Yadav and Rani (2011) contend that the media in their fight against climate change can focus on causes of environmental problems as well as their adverse impact on humanity. The mass media can as well act as catalyst in enlightening the masses on climate change. They can also report global warming, green peace movement, depletion of the ozone layer, green-house gases effect, acid rain, etc (Yadav & Rani, 2011). The mass media can still report the need to show restraint by humans in their use of the natural resources. They can as well play vital role in reporting disaster arising from climate change. They can yet give accurate and objective reports during pre-disaster, during the disaster and during post-disaster. These are with the intent to reduce tension and mitigate the adverse effect of such disaster.

Woldemichael (2020) likewise posits that the media are wide-reaching forces that can communicate what is happening daily around the world to people. They have influence in shaping public opinion on climate change and environmental protection. Similarly, Ogwezi and Umukoro (2020) opine that community and global efforts aimed at mitigating climate change are greatly influenced by how the media portray climate change in Nigeria and around the world. Though the media industry has been reporting issues of climate change, it has failed to give issues of climate change enough attention and better reportage, to hold politicians accountable and push for more nuanced conversations (Woldemichael, 2020). Ogwezi and Umukoro (2020) again argued that even though environmental reporting is fast becoming an important genre of journalism and has created increased environmental consciousness within newsrooms, environmental issues associated with climate change have not received the desired and needed attention. There is therefore the need for the media, particularly the mass media to report issues of climate change adequately, accessibly and inclusively. Mass media reportage of climate change issues should help translate climate change information to the public. It should also translate the impact of climate change in understandable and conceivable way. Again, mass media should centre on human rights in their reportage of issues of climate change. Infact, the mass

media should humanize climate crisis (Worldmichael, 2020). The above implies that the mass media which include broadcast media, are critical partners in combating and mitigating climate change. They can provide accessible and inclusive information on climate change. They can also give enough attention to climate change reportage by increased frequency of reportage and increased allocation of time. The matters of more frequency of reportage of climate change issues and increased allocation of time in terms of minutes are the focus of this study.

Statement of the Problem

The issues of media coverage and reportage of climate change have attracted the attention of scholars. Scholars have conducted various studies on aspects of media coverage and reportage of climate change such as media coverage of erosion in Southern Nigeria (Nwabueze, 2007); print media coverage of environmental activities in Nigeria from 2000 to 2004 (Olatunji, 2006); current trends, strengths and weaknesses of media coverage of climate change in 17 countries (Boykoff & Roberts, 2007); media coverage of climate change in Africa (Tagbo, 2010); and international comparison of media coverage of climate change (Barkemeyer, Figge, Hoepner, Holt, Kraak & Yu, 2017). The above studies focused on print media coverage and reportage of climate change. However, there seems to be no study which focuses on broadcast media reportage of climate change. Also, there is no study which focuses on the pattern of reportage of climate change between public broadcast media and private broadcast media. It is these gaps in knowledge that this study intends to fill. Therefore, this study wants to evaluate the pattern, that is, the way broadcast media reported issues of climate change in Lagos, Nigeria from 2016 to 2018. The study will focus on two areas of the way (pattern) broadcast media reported climate change issues in Lagos, Nigeria from 2016 to 2018. The first focus is on the behavioural pattern of frequency of reportage of climate change issues by broadcast media in Lagos, Nigeria from 2016 to 2018. The second focus is on the behavioural pattern of time allocation in minutes for the reportage of issues of climate change by broadcast media in Lagos, Nigeria from 2016 to 2018.

Research Objectives

This study has the following specific objectives;

(1) To evaluate the pattern of frequency of reportage of climate change issues by broadcast media in Lagos, Nigeria from 2016 to 2018.

(2) To ascertain the pattern of time allocation in minutes for the reportage of climate change issues by broadcast media in Lagos, Nigeria from 2016 to 2018

Research Questions

Arising from the above stated objectives are the following research questions:

(1) What is the pattern of frequency of reportage of climate change issues by broadcast media in Lagos, Nigeria from 2016 to 2018?

(2) What is the pattern of time allocation in minutes for the reportage of climate change issues by broadcast media in Lagos, Nigeria from 2016 to 2018?

Research Hypotheses:

From the Objectives and Questions above arose the following Hypotheses:

RHOi: There is no significant difference in the pattern of frequency of reportage of climate change issues by the selected broadcast media in Lagos, Nigeria from 2016 to 2018.

RHOii: There is no significant difference in the pattern of time allocation for the reportage of climate change issues by the selected broadcast media in Lagos, Nigeria from 2016 to 2018.

Significance of the Study

Findings from this study will reveal how broadcast media which comprises both public and private broadcast media in Lagos Nigeria reported climate change during the period of the study. This finding will lead to improved and better reportage of climate change by

broadcast media in Lagos, Nigeria. Again, the finding of this study will provide information for government and such like organisations (policy makers), broadcast media and other related stakeholders on climate change. This will lead to better response from government and other stakeholders towards climate change issues in Lagos, Nigeria. Lastly, finding of this study will add to existing literature on climate change, broadcast media as well as broadcast media reportage of climate change issues which is part of scholarship on environmental communication.

Literature Review

Climate Change: Causes and Effects

Our climate is in a deteriorating state. It is not what it was and there is urgent need to inform the public about the causes of this climate change and how rising temperature affects the environment which in turn affects our lives. Although the consequential effect of this sometimes may be immediate, but the steady decline of the environment due to human activities is certainly going to be worse in the future. However, there is hope to avert future catastrophe if humans change their activities on the environment, but such wake-up calls so far have been futile.

Human activities have bred earth's toxins, greenhouse gases, and production of vast amount of waste. There is no sign of slowing down or stopping and the impacts of climate change on humans, plants and animals are alarming. Specific evidence about global warming and its adverse effect on human activities have been confirmed severally. The present day earth is aflame with heat waves, wildfires, floods and frequent hurricanes. While global warming is directly impacting the health and environments of all species, the modern world appears to be living in a constant state of denial and weird positivism, simply waiting for someone else to take action.

The expected changes and methods to adapt to in mitigating climate change are largely in the hands of humans. It is encouraging to realize, that by engaging in strong mitigating efforts now, humans can make the difference of between three degrees and eight degrees Celsius of warming, and it is imperative that humans realize this vast difference in the scale of the consequences of each scenarios (Henson, 2011). Given the magnitude of climate change and the urgency to address it, humans need to respond promptly and thoughtfully. Henson (2011) conclusively argued that it is now largely up to humans immersed in a fossil-fuel-based economy to react accordingly and quickly.

Media and Climate Change

The media can play key role in public education of climate change which can induce and bring about positive contribution to understanding the seriousness of climate change and its impact. Yadav and Rani (2011) posit that the media in their war against climate change can focus on causes of environmental problems as well as their adverse impacts on humanity. The mass media can act as catalysts in enlightening the masses on climate change. They can report global warming, green peace movement, depletion of the ozone layer, green-house gases effect, acid rain, etc (Yadav & Rani, 2011). The mass media can equally report on the need to show restraint by humans in their use of the natural resources. They can as well play vital role in climate change reportage in time of disaster. Infact, they can give accurate and objective reports during pre-disaster, during the disaster and during post-disaster. These are with the intent to reduce tension and reduce the adverse effects of such disaster.

Woldemichael (2020) similarly posits that the media are wide-reaching forces that can communicate daily happenings around the world to people. They have influence in shaping public opinion on climate change and environmental protection. Though the media industry has done a lot of good in reporting climate change, it has failed to give climate change enough and better attention, hold politicians accountable and push for more nuanced conversations (Woldemichael, 2020). There is therefore the need for the media,

particularly the mass media to report climate change in accessible and inclusive way. Their reportage should help translate climate change information to the public in a way that will cause the right response. It should translate the impact of climate change in understandable and conceivable way.

Global Media and Climate Change

Global media continue to set news agenda on climate change and this is part of why climate change has dominated global agenda at international fora. Although not everyone believes that global media are really setting the agenda on climate change, however the ways in which the media report climate change and its impact have great significance. In the United States (US) for instance, skepticism towards a changing global climate is toned down as the label climate change is used rather than global warming, especially among Republicans. In the same vein, Schmidt, Ivanova and Schafer (2013) opine that just as the language about global warming matters, so do the ways in which global warming and its consequences are displayed through images, pictures, illustrations, maps, animations and so forth. The images surrounding the text are embedded context that constitute the basis upon which our understanding and interpretation is built. Consequently, Peters and Heinrich (2005) argue that the news media are the central interpretative system of modern societies and thus crucial for the societal view of climate change and climate politics (Peters & Heinrich, 2005 cited in Schmidt, Ivanova & Schafer, 2013). Media are central agents for raising awareness and information. These views were put forward by Christensen (2013) who contends that in a mediated social environment, national and international news outlets and other popular information sources are central factors. They influence not only public debate but also how politicians, representatives of the business community and other power-brokers position themselves.

Likewise, Christensen, Nielson and Wormb (2013) while explaining the role of the media in battling climate change opine that a dialectical understanding of the media as having significant social influence and at the same time, being socially-shaped remain essential. Media norms of impartiality- providing coverage of pros and cons- often distort the representative picture of scientific conflict or consensus. Although Christensen etal (2013) posit that the increased political and media profile of climate change over the past decade have helped revised earlier discourses and abstracted imaginaries of global warming, greenhouse effect and ozone layer depletion into more concrete social concerns associated with the changing Arctic and planetary future.

As climate change globally lies beyond the life-world and biographical horizons of most people, knowledge about it is mainly disseminated via public communication (Moser, 2010; Neverla & Schafer 2012, cited in Schmidta, Ivanova & Schafer 2013). Due to their high circulation and general audience, mass media are pivotal in this public communication on climate change. But most of the mainstream media consistently choose to ignore this either by complete omission or by downplaying the crisis. Media Matters, an organisation in the US, through its Fairness and Accuracy in Reporting (FAIR), revealed that in all the dozen major interviews with Donald Trump, not once was he asked about human caused climate change and this was not just mainstream television ignoring the issue (Media Matters, 2018). The news outlets' complicit in this omission includes the New York Times, the Associated Press and Reuters (Jamail, 2019).

In another perspective of media coverage of climate change globally, Anderson (2017) states that scholars recognize that climate change is an abstract topic for most people and public opinion about it forms more readily in the presence of making it psychologically closer to the individual. Information filtered through social media may be one of these personalizing and concretizing experiences that bring climate change closer to individuals. Taking social media as a promotional and advocacy tool, they can be used to facilitate exchanges between consumers and organizations (Tuten & Solomon, 2013). That is why there are many online sites doing

advocacy on climate change. Most of these sites are created for public engagement. Despite this, researchers argue that evidence shows that Twitter users who discuss climate change tend to exist within like-minded communities, with activists and skeptics of climate change remaining polarized (Williams, McMurray, Kurz & Lambert, 2015 cited in Anderson, 2017). Although it is natural to see such polarization within the media community because climate change has far divided the world and this will continue for a very long time, until the reality or otherwise of climate change is proven beyond reasonable doubt.

Media Coverage of Climate Change in Nigeria

One role of the media is to create awareness and hold individuals accountable. Waisbord (2000) states that accountability in journalism means asking who is responsible for transgression that is deemed to affect public good. Accountability assumes the need for maximum degree of openness of the political process to the public and powerful interest should be subjected to the rule of law. In the context of climate change in Nigeria, the media not only failed in creating the desired awareness but also failed in holding defaulters accountable. For instance, the American public and the rest of the world were captivated during the BP oil spill in the Gulf of Mexico. According to estimates, nearly five million barrels of oil gushed from BP's well into the Gulf of Mexico (Achenbach & Fahrent 2010; Roberson 2010; Froomkin 2010 cited in Wilcox, Ewoh & Okoli, 2012). Sadly, in Nigeria, the story is not the same as several environmental issues are not given attention by the media. In other climes, there are deliberate efforts to sustain the relationship between the media and public opinions on climate change. For instance, Indian media portray a nationalistic attitude towards climate change with the idea that carbon emissions will limit India's growth, and this frame plays into the larger public discourse on the topic (Billett 2010 cited in Anderson 2017). Another study in Japan suggests a positive relationship between amount of climate change coverage and public concern for it, and this was particularly the case as it was a front page story (Sampei & Aoyagi-Usui 2009 cited in Anderson 2017). It is this development that continue to intensity coverage of climate change in other parts of the world.

It is in the light of this that Guardian (2012) in its editorial states that the attention currently being paid to the negative effects of climate change on social, economic and environmental survival of the world is absolutely justified. However, this is not the case in Nigeria. One area of the failures of the Nigerian media in reporting climate change is the high level of oil spills and gas flaring in the Niger-Delta region that is going unnoticed. The operations of oil companies in this area are not climate-friendly. The ecosystem is in danger as a result of their activities. This prompted the question: will the oil companies ever be held accountable for their rampant spills and attendant pollution which have caused mass destruction of the mangroves, sea, land and human lives? (Wilcox, Ewoh & Okoli, 2012). Okoro and Nnaji (2012) in their study raised the question of the type of environmental pollution prevalent in the Niger-Delta region as covered by the newspapers they studied namely: The Guardian, Vanguard, Daily Sun and This Day which published stories on oil spillages. Out of the 25 stories on the subject matter, 24 or 96% of the stories were on oil spillages, while only 1 or 4% of the stories published was on gas flaring. There was not even a single story on improper waste disposal and illegal refining. This suggests that there is disconnection between the rate of environmental crisis and media coverage among Nigerian media. Gas flaring is one human activity that causes climate change. Unfortunately, it is not given attention in the Nigerian media. The advocacy and government intervention in this area is relatively low due to high level of corruption in the country.

Review of Related Literature

Climate change has attracted the attention of researchers who have conducted studies on various aspects of the issue. A study conducted by Nwabueze (2007) on media coverage of erosion in Southern Nigeria revealed that the Nigerian print media did not give adequate coverage to erosion which is part of climate

change. The study which selected national newspapers also found that a particular national newspaper did not give a single coverage to the issue of erosion in 2004 when some buildings in local communities in Anambra state were swallowed by erosion due to heavy rainfall. The study concluded that the print media in Southern Nigeria, particularly South-Eastern Nigeria should give adequate coverage to erosion which is part of climate change.

In another study by Olatunji (2006) on print media coverage of World Environment Day (WED) activities, it was found that from 2000 to 2004, dominant environmental issues in the print media were environmental awareness, water pollution and sea/ocean pollution. Little or no attention was paid to other equally critical environmental problems such as unsustainable practice of natural resources exploitation, conservation, air pollution, flood/erosion, deforestation and urban waste management. The study recommended that Nigerian print media should give coverage to all environmental issues (holistic coverage), not just on some environmental issues.

A similar study conducted by Boykoff and Roberts (2007) on current trends, strengths and weaknesses of print media coverage of climate change in 17 countries showed that all the 40 English-speaking newspapers studied were reformist in their portrayal of the needed action on climate change, when scientific projections suggest that the issue calls for revolutionary changes. The study also indicated that the print media studied have been demonstrated to actually play roles in hampering accurate communications on climate change and climate science to policy actors and the public. This stance of the 40 print media studied was suspected to be due to patronage in form of advertisements that the media get from policy actors and members of the public. The study concluded that in the midst of the present situation, there are many challenges and opportunities which lie ahead in print media coverage of climate change in the 17 countries studied.

Tagbo (2010) in her study on media coverage of climate change in Africa found that Nigerian and South African media coverage of climate change, though not particularly outstanding, is favourable when compared with the negligible coverage of climate change by Ghanaian media in the last quarter of 2008 and first quarter of 2009. The study also revealed that there seems to be marginal growth in climate change coverage by Ghanaian media which contrasted with previous study conducted (Gadzekpo, 2009) which revealed that in the first half of 2008, there was next to no media coverage on climate change. The study further indicated that climate change or climate science has become controversial as it has thus been labelled climategate and Himalayagate. This label has slightly impacted on climate change reportage in Africa as little attention was given to climate change by African media, represented by Nigeria and South African media, in the immediate post-Copenhagen period. The study again found that the bulk of the climate change stories on African media was usually taken straight from international wire services, thereby making African media cheer-leaders and amplifiers of climate change messages from other regions. There is therefore lack of original local stories on climate change in Africa which give African context, with a strong human angle. African media are not independent actors who set the agenda and promote debate on climate change from the African perspective. The study concluded by highlighting the hindrances to the effective media coverage of climate change by African media. These hindrances included the newness of the subject area, lack of financial resources, lack of technical knowledge of the subject matter by reporters, among others.

Another study by Barkemeyer, Figge, Hoepner, Holt, Kraak and Yu (2017) on international comparison of media coverage of climate change revealed that direct exposure to climate change and measures taken to combat global warming, influenced the position of climate change of the media agenda of the countries studied. The study also found that different contextual factors impacted on climate change related media coverage of the 41 countries where the study was conducted. The study concluded that climate change has moved

beyond being simply a “rich country issue” to “all countries issue” as both rich and poor countries feel the devastating effects of climate change.

Theoretical Framework

This study is anchored on Agenda Setting theory.

Agenda Setting Theory:

The beginning of agenda setting theory can be traced to 1922, when Walter Lippmann expresses his concern for the vital role that mass media can play in influencing the setting of certain image on the mind of the public (Lippmann, 1922). Recent study however claim that Bernard Cohen is attributed to reframing Lippmann's ideas into what is referred to as "agenda setting". According to him, the press is significantly more than a purveyor of information and opinion. In this context, Cohen believes that media may not be successful much of the time in telling people what to think, but it is successful in telling people what to think about. The world, according to him, looks different to different people, depending not only on their personal interest, but also on the map that is drawn for them by writers, editors, publishers and broadcasters (media). This means that media audience rely on the interpretative framework put forward to them by the media. The media determine the prominence of events to their audience. Audience learn not only about a given issue, but how much importance to attach to that issue from the frequency of coverage and reportage of that issue by the media. The mass media therefore determine important issues by setting the agenda through constant and repeated coverage and reportage of those issues (Shaw etal, 1972 cited in Littlejohn & Foss, 2008).

This theory is apt for the study because through constant reportage of issues of climate change by the broadcast media in Lagos, Nigeria, agenda will be set on climate change emphasizing that climate change is a big threat to all. This consciousness and awareness with time will create the right attitudes towards climate change among the public and the eventual actions to mitigate and adapt to effects of climate change in Lagos, Nigeria.

Research Method

This study adopted qualitative research method specifically content analysis. Kerlinger (2000), cited in Wimmer and Dominick (2006) sees content analysis as a systematic, objective and quantitative method of studying and analysing communication for the purpose of measuring variables. Wimmer and Dominick (2003), cited in Umukoro (2020) opines that content analysis is an effective method of studying social and political trends. Also, Umukoro (2020) contends that content analysis helps in analysis of existing manifest contents of communications to discover the existing patterns. Umukoro (2020) further argues that content analysis which is used to measure social and political trends has proven to be very effective. Based on Kerlinger’s (2000) opinion of content analysis, the variables to be measured in this study are frequency of reportage of climate change issues by the selected broadcast media as well as time allocated in terms of minutes for the reportage of climate change issues by selected broadcast media from 2016 to 2018. The study selected four broadcast media namely: Channels Television, Lagos Television, Radio Continental and Lagos Radio. The four broadcast media were purposively selected because they are the most popular broadcast media among audience of Lagos, Nigeria (Nigerian Finder, 2021, West African Radio Map, 2021). From the selected media, Channels Television and Radio Continental are private broadcast media, while Lagos Television and Lagos Radio are public broadcast media. Also, Channels Television and Lagos Television are television stations, while Radio Continental and Lagos Radio are radio stations. This is as shown in Table 1 below. The study analysed reports of the four selected broadcast media focusing on frequency of reportage of climate change and time in minutes allocated to the reportage of climate change from 2016 to 2018. The study analysed news bulletins, jingles, documentaries, paid announcements and other special programmes on climate change issues

aired by the selected broadcast media from 2016 to 2018.

Table 1: *Selected Broadcast Media for the Study.*

S/N	Name of Selected Broadcast Medium/Station	Category of Selected Broadcast Medium	Type of Ownership of Selected Broadcast Medium
1	Channels Television	Television Station	Private Broadcast Station
2	Lagos Television	Television Station	Public Broadcast Station
3	Radio Continental	Radio Station	Private Broadcast Station
4	Radio Lagos	Radio Station	Public Broadcast Station

Source, Authors' Compilation, 2022

Results of the Study/Findings

Table 2 provided data on the frequency of reportage of climate change in Lagos, Nigeria from 2016 to 2018 by the selected broadcast media. The Table also revealed the yearly frequency of reportage of climate change issues from 2016 to 2018 by the selected broadcast media. It as well showed the aggregate frequency and breakdown of frequency of reportage of climate change issues from 2016 to 2018 between the selected public broadcast media and private broadcast media.

In the year 2016 on twice-a-week basis, Channels Television had the highest frequency of reportage of climate change with 50 (62.5%). This was followed by Radio Continental and Lagos Television with 17 (21.2%) and 13 (16.3%) allocated frequencies for reportage of climate change respectively. Aggregately, private broadcast media had more frequency of reportage of climate change issues with 67 (83.7%) than public broadcast media with 13 (16.3%) on twice-a-week basis.

On weekly basis, Lagos Television gave the highest frequency for the reportage of climate change with 107 (59.8%). This was followed by Lagos Radio with weekly frequency of 69 (38.5%). Radio Continental and Channels Television followed with 2 (1.1%) and 1 (0.6%) respectively. Aggregately on weekly basis, public broadcast media gave far higher frequency of reportage of climate change issues with 176 (98.3%) that private broadcast media with 3 (1.7%).

On a forth night basis, only radio stations had frequency of reportage of climate change issues. Lagos Radio allocated 10 (90.9%) for that while Radio Continental allocated 1 (9.1%) to forth night reportage of climate change. Aggregately on a forth night basis, public broadcast media gave more forth nightly reportage to climate change issues with 10 (90.9%) than private broadcast media with 1 (09.1%).

In the year 2017 on twice-a-week, Channels Television again had the highest frequency of reportage of climate change issues with 75 (62.5%). This was followed by Radio Continental and Lagos Television with 30 (21.4%) and 20 (14.3%) allocated frequencies for reportage of climate change issues respectively. Lagos Radio had a frequency of 15 (10.7%). Aggregately, private broadcast media had more frequency of reportage of climate change issues with 105 (75%) than public broadcast media with 35 (25%) on twice-a-week basis.

On weekly basis in the same year, Lagos Television gave the highest frequency for the reportage of climate change issues with 115 (52.3%). This was followed by Radio Continental with weekly frequency of 57 (25.9%). Lagos Television and Lagos Radio followed with 33 (15%) and 15 (6.8%) respectively. Aggregately on weekly basis, private broadcast media gave far higher frequency of reportage of climate change issues with 172 (78.3%) than public broadcast media with 48 (21.8%).

On a forth night basis in the year under review, Lagos Radio had the highest frequency of reportage of climate change issues with 12 (60%). This was followed by Radio Continental with 5 (25%). Channels Television and Lagos Television came third and fourth with 2 (10%) and 1 (0.5%) respectively. Aggregately on a forth night basis, public broadcast media gave more forth nightly reportage to climate change

issues with 13 (65%) than private broadcast media with 7 (35%).

In the year 2018 on twice-a-week basis, Channels Television had the highest reportage of climate change issues with 60 (54.5%). Followed by Radio Continental with 29 (26.4) reportage of climate change. Lagos Television and Lagos Radio followed with 13 (11.8%) and 8 (7.3%) respectively. Aggregately, private broadcast media gave more reportage to climate change issues than public broadcast media on twice-a-week basis.

On weekly basis in the same year, Channels Television again had the highest reportage of climate change issues with 100 (50.5%). This was followed by Radio Continental with reportage of 70 (35.4%). Lagos Radio and Lagos Television then followed with 20 (10.1%) and 8 (4%) respectively. On the aggregate in 2018, private broadcast media had higher frequency of reportage of climate change issues with 170 (85.9%) than public broadcast media with 28 (14.1%).

On forth nightly basis in the same 2018, Lagos Radio, a public broadcast medium had the highest frequency of reportage of climate change issues with 11 (64.7%) and this was followed by Radio Continental, a private broadcast medium with 4 (23.5%). Then Lagos Television and Channels Television with same frequency of reportage of 1 (5.9%) each. On the aggregate in same year, Public broadcast media gave higher reportage to climate change with 12 (70.6%) than private broadcast which had 5 frequency of forth nightly reportage of climate change issues in the year under review.

Table 2: *Frequency of Reportage of Climate Change in Lagos, Nigeria by Broadcast Media from 2016 to 2018.*

Once-a-Week						
Broadcast Medium/Station	**2016**	**Percentage (%)**	**2017**	**Percentage (%)**	**2018**	**Percentage (%)**
Channels Television	50	62.5	75	53.6	60	54.5
Lagos Television	13	16.3	20	14.3	13	11.8
Radio Continental	17	21.2	30	21.4	29	26.4
Lagos Radio	0	0	15	10.7	8	7.3
Total	**80**	**100**	**140**	**100**	**110**	**100**
Aggregate for Public Broadcast Media	13	16.3	35	25	21	19.1
Aggregate for Private Broadcast Media	67	83.7	105	75	89	80.9
Total	**80**	**100**	**140**	**100**	**110**	**100**
Weekly						
Broadcast Medium/Station	**2016**	**Percentage (%)**	**2017**	**Percentage (%)**	**2018**	**Percentage (%)**
Channels Television	1	0.6	115	52.3	100	50.5
Lagos Television	107	59.8	33	15	8	4
Radio Continental	2	1.1	57	25.9	70	35.4
Lagos Radio	69	38.5	15	6.8	20	10.1
Total	**179**	**100**	**220**	**100**	**198**	**100**
Aggregate for Public Broadcast Media	176	98.3	48	21.8	28	14.1
Aggregate for Private Broadcast Media	3	1.7	172	78.2	170	85.9
Total	**179**	**100**	**220**	**100**	**198**	**100**
Forth nightly						
Broadcast Medium/Station	**2016**	**Percentage (%)**	**2017**	**Percentage (%)**	**2018**	**Percentage (%)**
Channels Television	0	0	2	10	1	5.9

Lagos Television	0	0	1	0.5	1	5.9
Radio Continental	1	9.1	5	25	4	23.5
Lagos Radio	10	90.9	12	60	11	64.7
Total	**11**	**100**	**20**	**100**	**17**	**100**
Aggregate for Public Broadcast Media	10	90.9	13	65	12	70.6
Aggregate for Private Broadcast Media	1	9.1	7	35	5	29.4
Total	**11**	**100**	**20**	**100**	**17**	**100**

Source, Field Work, 2022

Table 3 provided data and insight into the allocation of time in minutes to climate change issues in Lagos, Nigeria from 2016 to 2018 by the selected broadcast media. The Table indicated the yearly allocated time in minutes for the reportage of climate change issues from 2016 to 2018 by the selected broadcast media. It as well provided the aggregate and breakdown of allocated time in minutes for issues of climate change reportage within the period of the study between public broadcast media and private broadcast media.

In the year 2016, Channels Television, a private broadcast medium allocated the highest time of 288 minutes (40%) to climate change issues reportage. This was followed by Radio Continental with allocated minutes of 192 (26.7%), Lagos Television with allocated time of 144 minutes (20%) and then Radio Lagos with allocated time of 96 minutes (13.3%) followed respectively. Aggregately, private broadcast media gave more time of 480 minutes (66.7%) to the reportage of climate change issues than public broadcast media which gave 240 minutes (33.3%) for same purpose.

In the year 2017, Channels Television give the highest time to the reportage of climate change issues with 480 minutes (35.7%). This was followed by Radio Continental which allocated 432 minutes (32.1%) for the reportage of climate change issues. Lagos Television and Radio Lagos allocated 240 minutes (17.9%) and 192 (14.3%) respectively to the reportage of climate change issues in the year under review. Aggregately, in the same year private broadcast media again gave more time of 912 minutes (67.9%) to the reportage of climate change issues than public broadcast media which gave 432 minutes (32.1%).

In 2018, Channels Television gave 384 minutes (40%) to the reportage of climate change issues. This was followed by Radio Continental, Lagos Television and Lagos Radio with allocated minutes of 240 (25%), 192 (20%) and 144 (15%) respectively. Aggregately in the year 2018, private broadcast media gave more time of 624 (65%) minutes to the reportage of climate change issues that public broadcast media which gave 336 minutes (35%) to the reportage of climate change issues.

Table 3: *Time Allocated in Minutes (Yearly) to Climate Change Issues in Lagos, Nigeria by Broadcast Media from 2016 to 2018.*

Broadcast Medium/Station	**Year 2016**	**Percentage**	**Year 2017**	**Percentage**	**Year 2018**	**Percentage**
Lagos Television	144	20	240	17.9	192	20
Channels Television	288	40	480	35.7	384	40
Radio Lagos	96	13.3	192	14.3	144	15
Radio Continental	192	26.7	432	32.1	240	25
Total	**720**	**100**	**1,344**	**100**	**960**	**100**

Aggregate for Public Broadcast Media	240	33.3	432	32.1	336	35
Aggregate for Private Broadcast Media	480	66.7	912	67.9	624	65
Total	**720**	**100**	**1,344**	**100**	**960**	**100**

Source, Field Work, 2022

Test of Hypotheses:

The following hypotheses were tested using the Analysis of Variance (ANOVA) statistical technique being that the formulated hypotheses looked that the differences in the pattern of frequency of climate change issues reportage and the time allocated by broadcast media to the reportage from 2016 to 2018.

Hypothesis One: There is no significant difference in the pattern of frequency of reportage of climate change issues by the selected broadcast media in Lagos, Nigeria from 2016 to 2018.

Table 4: *Test of Analysis of Variance on the difference in the pattern of frequency of reportage of climate change issues by broadcast media in Lagos, Nigeria from 2016 to 2018*

		Sum of Squares	Df	Mean Square	F	Sig.
Pattern of frequency of reportage of climate change	Between Groups	.990	2	.495	.812	.444
	Within Groups	590.901	970	.609		
	Total	591.891	972			
Aggregate for the Broadcast Media	Between Groups	16.785	2	8.393	39.060	.000
	Within Groups	208.421	970	.215		
	Total	225.207	972			

Source, Field Work, 2022; Significant Level (P<0.05)

In Table 4, the test of analysis of variance (ANOVA), on the significant difference in the pattern of frequency of reportage of climate change issues by the selected broadcast media in Lagos, Nigeria from 2016 to 2018, shows that the pattern of frequency of the reportage from 2016 to 2018 was not statistically significant (F {2,970} = 0.812; p>0.05). The result reveals that there were similarities in the pattern of reportage of climate change issue from 2016 to 2018. The result further shows a significant difference in the pattern of reporting, on the aggregate, of the broadcast media from 2016-2018 (F {2,970} = 39.060; p<0.05). The result reveals that there was a significant difference, at the aggregate level, among broadcast media on the pattern of reportage of climate change issues. As already established in the descriptive context, the pattern of reportage of public broadcast media differs significantly from that of private broadcast media from 2016 to 2018. From the result, the null hypothesis is rejected while the alterative hypothesis is accepted.

Hypothesis Two: There is no significant difference in the pattern of time allocation for the reportage of climate change issues by the selected broadcast media in Lagos, Nigeria from 2016 to 2018.

Table 5: *Test of Analysis of Variance on the difference in the pattern of time allocation for the reportage of climate change issues by broadcast media in Lagos, Nigeria from 2016 to 2018*

		Sum of Squares	df	Mean Square	F	Sig.
Pattern of time allocation for the reportage of climate change	Between Groups	16.914	2	8.457	7.063	.001
	Within Groups	3617.371	3021	1.197		
	Total	3634.286	3023			
Aggregate for the Broadcast Media	Between Groups	.457	2	.229	1.028	.358
	Within Groups	671.543	3021	.222		
	Total	672.000	3023			

Source, Field Work, 2022; Significant Level (P<0.05)

Table 5 was used to test the second hypothesis of the study. The ANOVA test result shows the significant difference in the pattern of time allocation for the reportage of climate change by broadcast media in Lagos, Nigeria from 2016 to 2018. The result shows that the pattern of time allocation to broadcast media for the reportage of climate change was significantly different from 2016 to 2018 (F = {2, 3021} = 7.063; P<0.05). The result reveals that different broadcast media had significant degrees of differences in time allocated for reporting climate change issues from 2016 to 2018. From the result, the null hypothesis is rejected while the alterative hypothesis is accepted.

Discussion

Data generated from the study were discussed in line with the research questions earlier posed.

Research Question (RQ) 1: What is the pattern of frequency of reportage of climate change issues by broadcast media in Lagos, Nigeria from 2016 to 2018?

Answer to RQ1 is provided in Table 2. The Table provided yearly data (patterns) of frequency of reportage of climate change in Lagos, Nigeria by the selected broadcast media which comprises public and private broadcast media. In the year 2016 on twice-a-week basis, the total frequency of reportage of climate change issues by the selected broadcast media was 80. In the next year, 2017, this increased to 140. In the following year, 2018, it fell to 110. On weekly basis, it was 179 in 2016, 220 in 2017 and then 198 in 2018. For forth-nightly basis, the frequency of reportage of climate change issues was 10 in 2016, 13 in 2017 and 12 in 2018. The data shows patterns of rising and falling (inconsistencies) in the yearly frequency of reportage of climate change issue in Lagos, Nigeria by the broadcast media selected for the study. On the hypothesis tested on significant difference in the frequency of reportage of climate change issues by the selected broadcast media from 2016 to 2018, result revealed that there were similarities in the pattern of reportage of climate change issue in the period under review. Furthermore on the aggregate, result indicated a significant difference on the pattern of reportage of climate change issues by the selected broadcast media from 2016-2018 (F {2,970} = 39.060; p<0.05).

This findings depict unreliable patterns of broadcast media reportage of climate change issues in Lagos, Nigeria in the period under review. This increase in frequency of reportage of climate change issues in 2017 could be due to increased rainfall and its attendant floods. This effect of climate change caught the attention of the media, hence the increase in

frequency of reportage of issues of climate change. This finding is in line with the studies of Barkemeyer, Figge, Hoepner, Holt, Kraak and Yu (2017) who found that media reportage of climate change in countries was as a result of impact of climate change felt at the time. So, broadcast media in Lagos reported climate change more in 2017 because of the impact of floods that year. Again, this inconsistent reportage of climate change issue by broadcast media in Lagos, Nigeria from 2016 to 2018 tallies with the findings of Nwabueze (2007) and Tagbo (2010) who indicated in their separate studies that the media, particularly Nigerian and South African print media did not give adequate reportage to climate change issues . It can be disputed therefore that the selected broadcast media did not give adequate frequency to the reportage of issues of climate change in Lagos, Nigeria from 2016 to 2018.

Research Question (RQ) 2: What is the pattern of time allocation in minutes for the reportage of climate change issues by broadcast media in Lagos, Nigeria from 2016 to 2018?

Data from Table 3 answered Research Question 2. The Table provided again yearly data (patterns) of time allocation in minutes for the reportage of climate change issues in Lagos, Nigeria by the selected broadcast media (both public and private broadcast media) from 2016 to 2018. In the year 2016, 720 minutes were allocated for the reportage of climate change issues by the selected broadcast media. This increased to 1,344 minutes in 2017 and fell to 960 in 2018. These data showed same patterns of inconsistencies in the yearly time allocation in minutes for the reportage of climate change issues in Lagos, Nigeria by the selected broadcast media. On the test of hypothesis for significant difference in the time allocated for reporting climate change issues from 2016 to 2018, result revealed that the pattern of time allocation to broadcast media for the reportage of climate change was significantly different from 2016 to 2018 ($F = \{2, 3021\} = 7.063$; $P<0.05$). The result further showed that the different broadcast media had significant degrees of differences in time allocated for reporting climate change issues from 2016 to 2018.

Summarily, just as it was revealed in RQ1, the data above again showed inconsistent and unreliable patterns of time allocation in minutes for the reportage of climate change issues in Lagos, Nigeria from 2016 to 2018 by the selected broadcast media. Like in the first finding, this findings again tallies with the findings of the studies of Barkemeyer, Figge, Hoepner, Holt, Kraak and Yu (2017), Nwabueze (2007) as well as Tagbo (2010) who in their different studies observed that the media of different countries only gave more reportage to issues of climate change because of the impacts of climate change at the time. Their studies also showed that the media (Nigerian and South African print media) did not give adequate reportage to issues of climate change. It can be argued therefore that the selected broadcast media did not give adequate time in minutes for the reportage of climate change issue in Lagos, Nigeria form 2016 to 2018.

Conclusion

The study evaluated the ways (patterns) of reportage of climate change issues by broadcast media in Lagos, Nigeria from 2016 to 2018. The study focused on the pattern of frequency of reportage of climate change issues as well as the pattern of allocation of time in minutes for the reportage of climate change issues from 2016 to 2018. Firstly, the study found that the frequency of reportage of climate change issues as well as time allocation for reportage of climate change issues by the selected broadcast media increased in 2017 when compared to 2016. This finding corroborates the findings of Barkemeyer, Figge, Hoepner, Holt, Kraek and Yu (2017) who equally found in their international comparison of print media coverage of climate change that print media of the sampled countries gave more reportage to climate change issues as a result of direct exposure to climate change. This means that Lagos broadcast media gave increased reportage to issues of climate change in 2017 because of their impacts. Secondly, the study revealed that the frequency of reportage of climate change

issues as well as time allocation in minutes for the reportage of climate change issues by the selected broadcast media in Lagos decreased in 2018 when compared to 2017, meaning that broadcast media in Lagos did not give adequate attention to issues of climate change in 2018. Could this be because of reduced intensity of climate change and its impact (reduced rainfall and its attendant floods) in 2018? Again this favourably aligns with the outcome of Barkemeyer, Figge, Hoepner, Holt, Kraek and Yu (2017) as stated earlier. This inversely implies that broadcast media in Lagos, Nigeria relaxed (reduced) their intensity of reportage of climate change issues when climate change impact is not felt that much. Additionally, the above findings explain the research outcomes of Nwabueze (2007) and Tagbo (2010) who in their separate studies indicated that print media did not give enough coverage to issues of climate change.

As captured in literatures reviewed earlier, the studies of Nwabueze (2007) and Tagbo (2010) showed that print media did not give adequate attention to issues of climate change in Nigeria. This present study similarly revealed that broadcast media in Lagos, Nigeria did not give enough attention to the reportage of issues of climate change. Therefore, it can be argued that the Nigerian mass media, that is, both print and broadcast media did not give the desired and serious attention that issues of climate change deserve. Thirdly, the study indicated that there was similarity (no significant difference) in the frequency of reporting climate change issues from 2016 to 2018 but there was significant difference in time allocated for reporting climate change issues from 2016 to 2018 by the selected broadcast media. Fourthly, the study indicated on the aggregate level, there was significant difference in the frequency of reportage and time allocation for the reportage of climate change issues from 2016 to 2018 by the selected broadcast media.

This current finding does not augur well for the media's fight against climate change and its impacts. Infact, it is a negation of the tenets of the agenda setting theory as propounded by Walter Lippman (1922). Furthermore, it is not healthy for the actualization of Clause 3 of Goal 13 of the Sustainable Development Goals (SDGs) of the United Nations (UN), which states clearly that there must be improved education, awareness-raising as well as human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning, in order to take urgent action to combat climate change and its impacts.

Recommendations

Arising from the conclusion, the study therefore recommended thus:

(1). Broadcast media in Lagos, Nigeria should consistently increase their frequency of reportage as well as allocation of time in minutes for the reportage of issues of climate change. Doing this will set the agenda to achieve Clause 3 of Goal 13 of the United Nations' (UN) Sustainable Development Goals (SDGs) in Lagos and in Nigeria at large.

(2). Public broadcast media in particular should consistently increase their frequency of reportage of issues of climate change. Governments of other countries have prioritized issues of climate change reportage by giving it more attention. The paying of lip service to issues of climate change by public broadcast media in Lagos and Nigeria at large, is to the peril of the governments and their people.

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