

Innovations

Influence of Media Reportage of Flood Management on the Knowledge, Attitudes and Practices of Residents of South-South Nigeria

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Abstract

This research which examined Influence of Media Reportage of Flood Management on the Knowledge, Attitudes and Practices of Residents of South-South, Nigeria was aimed at filling the gap in existing literature on disaster mitigation and management in Nigeria. Five objectives were raised in the study. The agenda setting theory and the theory of reasoned action and planned behavior served as the theoretical basis for the study, while survey and in-depth interview methods were used. A total of 479 respondents from the selected flood impacted states of Rivers, Bayelsa and Delta in addition to sampled opinions of 15 respondents in an in depth interviews were gathered. Findings revealed that the level of exposure was occasional (66.3%), with radio being the major source (88.2%) and most of the responses on attitude towards media reports of flood management were found more on positive attitude towards the media messages. The study reveals and concludes that there is a connection between exposure to media messages and its believability over time in what is understood in the media message as well as the positive attitude developed as a result of what is believed about the media message. The study then recommends among other things that media campaigns on issues of public interest should be reported more frequently for the audience to attach more importance to it and give the needed attention to such messages.

Key Words: *Attitude, Disaster, Flood, Knowledge, Media Reportage, Management, practices*

Introduction

Recently, flooding appears to be one of the most common natural disasters in the world (Jha, Bloch & Lamond, 2012). Available statistics show that no less than twenty percent of the world's population is threatened by flood disasters (Adelekan & Asianbi, 2016), and floods cause more than half of all fatalities and almost a third of the total economic damage from other natural disasters (Kellens, Zaalberg, Neutens, Vanneuville & De Maeyer, 2011). This was evident in the flooding storm that battered the northeastern United States on Wednesday, September 1, 2021, as downpours and violent winds battered the region amid a tornado warning about a terrifying hour later dark (Lakhan, Oliver & Pengelly, 2021). Lakhan et al. (2021) believe the disaster has shown

with startling clarity how vulnerable the United States is to the extreme weather conditions brought on by the man-made climate crisis with a death toll of 49 across 8 states, knocking out power, train systems and damaging houses.

In Nigeria, since the last four decades, flood events like flash floods, channel floods, urban floods, coastal inundation flood and back-swamp floods have been occurring with devastating consequences, but the 2012 and other subsequent floods in 2016 were more challenging than earlier ones (Oladokun & Proverbs, 2016). The National Emergency Management Agency (NEMA) reports that the 2012 floods devastated 30 states in Nigeria; with over 7 million affected; 597,476 homes were damaged; 2.3 million people were displaced and 363 deaths were recorded. Many animals and other livelihoods, large areas of cropland and other biodiversity were also destroyed (Amangabara & Obenade, 2015).

In fact, the flood disaster that happened in many parts of Nigeria in 2012 remains one of the most devastating in the country's history. In Nigeria, flooding has been threatening institutions and communities especially in the South-South region, and it has always destroyed both progressing projects and standard environments, (Olanrewaju, Chitakira, Olanrewaju, & Louw, 2019).

The 2012 floods and many subsequent ones were preceded with warnings from relevant agencies and international bodies. In the views of Ajaero, Okoro & Ajaero (2016), the mainstream media (radio, television and newspaper) circulated the Nigerian Meteorological Agency (NIMET) early predictions of the 2012 flooding earlier in the year and warned Nigerians to prepare for torrential rains that would last until the third week of July 2012. They noted that there are signs that some parts of the country may experience unusual rainfall and so the information on the risks linked to flooding was properly disseminated to the populace to adopt proactive measures.

The Office for the Coordination of Humanitarian Affairs (OCHA 2012) confirmed that the population would be well advised to take proactive measures to mitigate and reduce the impact of the floods. It confirmed that mass media messages intended to propagate the problem were seemingly ignored, leading to the catastrophic effects of the flood, with almost all states in the Federation suffering colossal destruction to property, farmland, animals and even loss of life reported, but with more devastating effects in South-South, Nigeria.

Following the 2012 flood, NiMET and Nigeria Hydrological Services Agency (NIHSA) have been consistent in warning residents of flood-prone states about impending floods and their associated dangers, with the media at the vanguard of disseminating such alerts. The warnings have included mitigating strategies offered by the agencies to the populace as the emphasis mostly is for the populace to adopt safety precautions. According to OCHA (2013), on April 30, 2013, NIHSA released the maiden edition of its Annual Flood Outlook for Nigeria which was an outcome of NiMET's prediction on increased rainfall in 2013 across Nigeria. It was part of measures to curtail likely flood in Nigeria and avoid the repeat of the 2012 incident. Since then, the release of that report became an annual ritual to intimate the populace on flood events ahead of time and the media has become a critical partner in disseminating the reports and warnings.

According to NIHSA Annual Flood Outlook Report (2015), which was presented on July 5, 2015, some states in Nigeria, especially those in the South-South, were warned of an impending flood disaster and residents advised to take proactive measures to mitigate the situation through relocation and observing safety measures with hindsight from the 2012 flood. Again, on July 26, 2016, the Director-General of NIHSA, Moses Backley warned Nigerians of impending flood disaster in 2016 (Afuma, 2016). Backley advised residents of flood-prone areas to be vigilant and move to safer places to avoid disaster (Nigerianeye, 2016). He attributed fears of impending flooding to expected sea-level rise and tidal waves along river basins.

On November 3, 2019, the NIHSA alerted the state governments of Edo, Delta, Anambra, Rivers and Bayelsa States of possible flooding as a result of massive flooding in Adamawa due to the release of water from the Lagdo Dam in Cameroon (Unini, 2019).

In the Annual Flood Outlook for the following year, NIHSA (2020) highlighted flood predictions showing that some portions of at least 102 LGAs in 28 states are among the highly likely flood risk areas, while portions of 275 LGAs across the 36 states of the federation, including the Federal Capital Territory (FCT), are among the moderately likely flood risk areas as of 2020. It was found that the states bordering the Niger and Benue rivers, namely Kebbi, Niger, Kwara, Adamawa, Kogi, Anambra, Delta, Edo, Rivers and Bayelsa states, would likely be affected by river flooding.

At each of these predictions and warnings emphasising the worrisome danger signals of flooding, sister government agencies such as the National Emergency Management Agency (NEMA), Federal Environmental Protection Agency (FEPA), Federal Ministry of Environment (FME), National Orientation Agency (NOA) and their counterparts in the states often reiterated the warning alerts soon after they were released by NIHSA as predicted by NiMET. The media (radio, television and newspapers) in response to such disaster alerts take the agenda setting position to begin awareness and sensitisation campaigns to promote proactive actions by the populace (Ude-Akpe & Ezeoke, 2017).

Unfortunately, the reoccurrence in a greater dimension of the 2022 flood disaster across some states in Nigeria indicates that little or no lessons were learnt either from previous event or from the various alerts by the concerned agencies. This is because the 2022 flood disaster has again caught Nigeria and her citizens take a nap. From Anambra to Bayelsa, Rivers, Kogi, Delta, Imo, Kebbi and many other states, several communities were engulfed by the screams of many people who had lost loved ones, homes, land, farmland and other valuables to the devastating flood. According to Minister of Humanitarian Affairs, Disaster Management and Social Development Sadiya Umar Farouq, at the last count there were over 603 dead, about 1.3 million displaced, 2,407 injured and more than 200,000 homes destroyed (Nzeagwu, Ogugbuaja, Ahovi, Godwin, Osayande, Jegede, Obansa, Udejah, Osahon & Idris, 2022). According to Nzeagwu et al (2022) by the end of October 2022 over 27 out of the 36 states have been badly affected with the quantification of the economic losses yet to be ascertained as against the over N2.6 trillion of losses incurred in the 2012 flood disaster.

Apparently, flood disaster is a critical challenge all over the world, especially in the developing countries to which Nigeria belongs. The desire to safeguard the environment through proper information has become a priority in the policy principles of different countries and organisations. In essence, media messages on environmental issues relate to the transmission of information and engineering of the information processes pertaining to the management of the environment (Nikos & Minos, 2020).

Statement of the Problem

Floods have become a recurrent environmental problem in Nigeria over the past decade. The 2022 floods are so far the most costly in fatality, lost property, displacements and the associated humanitarian catastrophe. The media have remained a potent institution helping to confront floods, amidst a lot of challenges, which affect message effectiveness. Aside the problems of resources and quality coverage, it is often a source of concern what the public does with media messages. In general, measuring communication effectiveness remains paramount in the process of mass communication. Unfortunately, this is not often done, and the consequences continue to mount. For instance, there were several stringent warnings prior the floods that have occurred in Nigeria, yet some of the simplest cautions were not heeded. To this effect, the present study investigates the influence of media reportage on flood management on the knowledge, attitudes and practices of the residents of south-south Nigeria. Continued avoidance of this necessary point in the communication process impacts negatively on the cycle of environmental communication, especially in the necessary adjustments on communication strategy

Research Questions

In line with the objectives of this study, the research questions below were raised to help in shaping the study.

- i. What is the level of exposure of residents of South-South Nigeria to media messages on flood management?
- ii. What is the level of influence of media messages on flood management on the knowledge of residents of South-South Nigeria?
- iii. What is the level of influence of media messages on flood management on the attitudes of residents of South-South Nigeria?
- iv. What is the level of influence of media messages on flood management on the practices of residents of South-South Nigeria?
- v. What are the factors that inhibit the influence of media messages on flood management on the knowledge, attitudes and practices of residents of South-South Nigeria?
- vi.

Literature Review

Audience Knowledge of Media Reports on Flood Management

In recent decades, knowledge of flood risk management (FRM) has evolved and improved grassroots resilience to flood events, rather than controlling floods using engineered solutions

(Van, Martini & Loat 2009). Adequate knowledge of flood protection is an important element of flood risk management, which aims to educate people about the occurrence of flood risks and encourage those at risk to take preventive measures and prepare in advance (Hagemeyer & Wagner, 2009).

Actual knowledge of flood risk is an important key to linking the expertise and management carried out by experienced practitioners to developing resilience at the local level in the flood risk environment (Rollason, Bracken, Hardy & Large, 2018). There are two phases to knowing about flood risk: first, identifying areas at risk of flooding, and second, informing vulnerable people when to expect floods. Both stages are important in getting those at risk of flooding to prepare for, anticipate and take action to reduce flood damage. This is an integral tenet of developing community resilience. However, the effects of flooding can be so severe that not only does it affect those whose places of residence are easily flooded, but it causes various kinds of problems, including diseases, over a longer period of time. For example, research has found that flooding leads to increased morbidity, increases the incidence of infectious diseases, and causes serious illness.

Audience Attitude and Behaviour in Response to Media Reportage of Flood Management

According to Gilbert 1940s in (Wim, Teun, & Philippe, 2020), folks' show attitude to flood events based on their former experiences. This is to say that ones' first experience with any flood hazard ultimately determines his attitude when he is under pressure from a suspected flood incident. For many decades now people have been involved in developing strategies to vividly protect their environment from any adverse effect of flooding. Different countries now show interest in taking proactive measures to avert floods. For example, China city walls were constructed over 4,000 years ago to defend the country against any flooding (Emmanuel & Baker, 2014).

Central to the concept of flood risk management is the shared responsibility of government and citizens. This is because citizens also have major responsibilities in mitigating the impact of flooding at the property level (Bichard & Kazmierczak, 2012). Property-level flood control measures include flood gates, vent covers, flood defenses, etc. They play an important role in a community's flood resilience by increasing the ability of individual households to avoid or reduce flood damage (Begg et al., 2007 in Emmanuel & Baker, 2014).

However, government measures can increase the motivation to learn about environmental problems in the event of flooding. For example, it has been found that subsidies can motivate homeowners to learn about and take action on property-level flood protection measures in the United Kingdom (UK). Learning-based flood protection promotes citizen responsibility for flood protection. In industrial society, it has long been taken for granted that containing floods is primarily the responsibility of the state. Finally, the importance of shared responsibility between government and citizens in the concept of flood risk management was recognized (Owusu, Wright & Arthur, 2015).

Dealing with any hazard in the light of mitigation, control or management is primarily meant to create Ways to reduce the vulnerability of vulnerable populations by reducing impact

and damage, or by other means of flood protection, including managing the floods in a variety of other ways. In the words of Messner and Mayer (2006 in Christer, 2013), there is a paradigm shift in flood research from the view that floods must be prevented by flood control whenever possible, to the view that floods must be managed in some other way at all costs. Various questions and tasks are associated with flood management, ranging from the prediction of flood hazards and their social consequences to measures and instruments for risk reduction. Taking into account various aspects, flood hazard management requires systematization and integration (Christine & Carsten, 2021).

Studies on environmental hazards have traditionally focused on natural dimensions. Dangers appear to be real forces of nature and are observed in an objective manner, totally devoid of values and human perception. Because of this, many countries around the world suffer from different types of floods, including Nigeria. As climatic conditions are constantly changing, it is likely that problems such as catastrophic floods will reoccur, the impact and huge damage of which will be even more devastating. There is therefore an urgent need to conduct systematic and effective studies on the efficiency and perception of proactive flood preparedness. Research into the perception of environmental risks from flooding began in the 1940s, when Gilbert White published his seminal thesis on human adaptations to flooding in the United States. Gilbert's research found that people's past experiences of flood events influence their actions and behavior whenever they are threatened by potential flood events. With this research, Gilbert White laid the groundwork for proper exploration of the human dimensions of flood risk in a multi-hazard environment. During the 1960s, the perception and management of flood risks were on the political agenda and have since been considered crucial to the comfort of the population. (Wim, Teun & Philippe, 2020). Environmental risk notifications are perceived differently by different people, especially in the context of flood management. Any top-down understanding of individual flood behavior and risk communication has been questioned, especially in recent years, from the point of view of the fundamental requirements in flood risk management. The rationale behind this sea change is the concept of flood governance (Hartmann & Driessen, 2017). This means that many stakeholders should act, come up with ideas, and work hard and work together to manage flood risk at any scale in time or space. People's perceptions and choices before, during, and immediately after a flood disaster can clearly reflect their vulnerability, impact, recovery time, and the resilience of individuals and communities at large (Slavikova 2018; Jpner, 2018; Reghezza & Rufat, 2015).

These changes require a proper understanding of the real meaning of flood risk information. A top-down approach is sometimes required for the critical use of indicators and models. We believe that all that is required is a shift towards collaborative and participatory approaches to flood risk management. This idea is consistent with the evolution of thought and policy that has begun to promote public engagement, social capacity, community involvement, as well as individual responsibility. This trend applies to many countries in Europe, North America and China (Dai, Van, Wang & Van, 2019; Suykens, Tarlock, Priest, Doorn & Van, 2019; Tarlock & Albrecht 2016).

In different nations where individual perceptions and behaviour are invoked in environmental flood messages, the actual roles of the public members and limit of individual actions are usually unclear. More so, our understanding of people's perceptions, capacities and underlying motivations regarding flood risk is still limited and fragmented. Partial and disjointed research has hampered the mutual validation of research results and prevented the academic community from building on prior knowledge, advancing the research field, and best supporting flood risk reduction activities (Rufat&Fekete 2019 in Samuel, Alexander, Juliana, Thomas, Hartmann, Tim, Thomas & Ben, 2021).

There is no doubt that hydro-meteorological activities are very expensive and have a strong impact on the human environment. Effective response to flood events requires action-oriented risk management strategies at both the individual and watershed level to improve community stability and resilience. When focusing on flood risk and related information, individual risk behaviors with regard to the implementation of property-level flood risk adaptation measures (PLFRA) are often overlooked. Every society needs a comprehensive view of the best measures to ensure homeowners in flood-prone communities can live comfortably at all times. This includes the storage of relief supplies, as well as assessing possible costs and technical feasibility for new and existing buildings to house flood victims (Nikos & Minos, 2020). Flood risks pose a serious threat to the socio-economic and structural development of our many nations. Every year, floods kill around 20,000 people and affect more than twenty million (20,000,000) people worldwide caused by homelessness due to flooding. Recent research shows that damage from flooding is likely to increase in the near future. This forecast is mainly based on the projected impacts of climate change (Wim, Teun& Philippe, 2020). Flood vulnerability is expected to increase in some countries due to population growth and ease of spread. All over the world, flood risk experts and policy makers are struggling to find the appropriate techniques to effectively manage flood hazards. To estimate the negative impact of flood events, experts have systematically adopted some risk-based approaches that focus on the likelihood of events and the magnitude of the negative consequences. These technical and fruitful approaches deal with objective risk assessment.

An experienced group of researchers has focused on the subjective aspects of flood hazards that define people's perception of flood risk (Olanrewaju, Chitakira, Olanrewaju&Louw, 2019). Several senior researchers believe that flood risk control is shifting from a preliminary objective approach to an integrated approach that considers social aspects such as improving flood anticipation, preparedness and response. Therefore, the need to integrate lay knowledge into measures to prevent, mitigate and manage flood risks is a welcome development. Communicating about flood risks is increasingly becoming an essential part of communication.(Adekola&Lamond, 2018).

Factors That Inhibit Environmental Messages on Flood Management

There are several factors that hinder environmental messages. Many studies have shown that people in Nigeria do not perceive media reports and messages on environmental issues well.

For example, Afolabi (2010) claims that Nigerian mass media are often out of date when it comes to reporting on environmental crises. Other research also shows that Nigeria's mainstream media has not been effective in its monitoring role in reporting on environmental issues, particularly floods. The inadequacy of media coverage of environmental flooding can be attributed in part to the fact that some media offices in Nigeria are owned and managed by governments and individuals who are political actors and as such they are mainly used to further their directors' prime interests or to apply. Furthermore, studies have shown that the mainstream media in Nigeria does not provide meaningful reporting and effective information on climate change related issues, just as they do not provide sufficient detail on environmental issues in general (Batta, Ashong& Bashir, 2013). ; Moeti, Maraisane&Marou, 2008).

This problem of inadequate environmental reporting in Nigerian mass media was observed in the case of the 2012 flood, where major parts of the flood risk communication were reported in a news-only format without extensive reporting information that would have opened the public's eyes to suspected flooding and the dangers it posed should (Ajaero, Okoro and Ajaero, 2016). Part of the barriers to environmental flood information is the ineffective dissemination of flood risk information and the initiation and proper implementation of disaster preparedness and prevention strategies (Adelekan&Asiyanbi, 2016). Flood management messages can be influenced by individual attitudes, such as underestimating the likelihood of flooding, focusing on short-term financial constraints or relying on government support, as discussed in (Kunreuther 2006 in Owusu, Wright & Arthur, 2013). Other issues include cost, aesthetics, and the belief that flood defenses should be provided by the state (Bichard&Kazmierczak, 2012).Part of the hindrances to environmental flood information is ineffective dissemination of flood risk information, initiation and proper implementation of disaster mitigation and prevention strategies (Adelekan&Asiyanbi, 2016).

Messages on flood management could be affected by individual attitude, such as underestimating the likelihood of flooding, focusing on short-term, financial constraints, or relying on government assistance, as discussed in (Kunreuther 2006 in Owusu, Wright & Arthur, 2013). Other issues include the cost, the aesthetics, and the belief that flood protection should be provided by the state (Bichard&Kazmierczak, 2012).

Theoretical Framework

This The study is based on the agenda setting theory proposed by McComb and Shaw in 1972. She also combined the theory of reasoned action and planned behavior to provide further possibilities in determining the pattern of behavior that might result from the exposure, knowledge, attitudes and practices of residents of South-South Nigeria Mass media messages on flood management. While the agenda-setting theory describes a very strong influence of the media in bringing decisive issues into public opinion, the theory of reasoned action and planned behavior, introduced by Martin Fishbein and IcekAjzen in 1967, tends to assume that a person's willingness to perform a particular behavior (behavioural intention) is predicted by (i) the person's attitude toward the behavior and (ii) subjective norms related to the behavior. So setting

the agenda requires mass media to bring more disaster issues to the public, especially in rural areas, to create more knowledge and build disaster resilience flood management consciousness on the people; the TRA/PB pushes towards gauging the behaviour of the people in either acting in line with their believability to the knowledge gained from the information made available by the media, thus helping them either take appropriate action or remain docile.

The relevance of both theories in this study are hinged on the fact that they explain how messages on flood management in the media can draw the attention of the audience to follow the agenda of the mass media and protect the environment from flooding and avert the attendant disaster that accompany flooding; stimulate the audience of environmental flood messages on how they reason before their actions and plan their behaviour adequately in managing flooding.

Methodology

A mixed research method was used. Specifically, the mixed methods to be adopted in this study are descriptive survey and in-depth interview. The population for this study is the adult residents in Delta, Bayelsa and Rivers States. The population of adult residents in these states include: Delta State = 4,112,445; Bayelsa State = 1,704,515 and Rivers State = 5, 198,716 with 5 Staff for each state from the environmental agencies (5 x 3 = 15) which serves as the population for the in-depth interview. This gives a total of **11,015,676** residents and **15** Staff with 479 residents as sample size. The multi-stage sampling procedure involving purposive sampling, simple random and convenient sampling technique as well as proportionate sampling techniques.

Results

A total of 479 copies of the questionnaire were administered among the target respondents. Out of this number, 478 copies were returned giving a return rate of 99.8%. On the In-depth interview, 15 key informants were interviewed in all (i.e. 5 from each selected state – Rivers, Delta and Bayelsa). The results and the findings from the data collected are presented below:

Table 1: *Distribution of responses showing residents' attitude towards media reportage of flood management*

| S/N | Variables | SA | A | D | SD | U | Mean | St.D |
|-----|--|-----|-----|-----|-----|----|------|-------|
| 1. | Media reportage of flood management give good warning signals about flood | 210 | 248 | 13 | 3 | 4 | 4.37 | 0.654 |
| 2. | Media reportage of flood management do not always address the peculiar nature of flood in our area | 26 | 114 | 299 | 14 | 25 | 3.21 | 0.806 |
| 3. | Media reportage of flood management are time bound | 55 | 351 | 17 | 42 | 13 | 3.82 | 0.847 |
| 4. | Media reportage of flood management are not usually time bound | 38 | 102 | 297 | 24 | 17 | 3.25 | 0.814 |
| 5. | Media reportage of flood management do not provide real life solutions to flood | 45 | 68 | 130 | 221 | 14 | 2.81 | 1.032 |
| 6. | Media reportage of flood management provide real life solutions to flood | 111 | 287 | 37 | 23 | 20 | 3.93 | 0.936 |

| | | | | | | | | |
|-----|---|-----|-----|-----|-----|----|------|-------|
| 7. | Media reportage of flood management do not use the right channel to reach the grass-root | 50 | 102 | 278 | 17 | 31 | 3.26 | 0.929 |
| 8. | Media reportage of flood management use the right channel to reach the grass-root | 45 | 306 | 40 | 73 | 14 | 3.62 | 0.953 |
| 9. | Media reportage of flood management do not give out pre-flood warnings on time. | 48 | 57 | 326 | 25 | 22 | 3.18 | 0.853 |
| 10. | Media reportage of flood management give out pre-flood warnings on time. | 56 | 327 | 43 | 21 | 32 | 3.74 | 0.957 |
| 11. | Media reportage of flood management really helped in preparing residence for flood emergencies | 49 | 193 | 79 | 137 | 20 | 3.24 | 1.102 |
| 12. | Media reportage of flood management did not really help in preparing residence for flood emergencies | 41 | 212 | 178 | 31 | 16 | 3.48 | 0.868 |
| 13. | Media reportage of flood management really pointed out areas to guide against during flood | 55 | 340 | 48 | 23 | 12 | 3.84 | 0.781 |
| 14. | Media reportage of flood management do not really point out areas to guide against during flood | 54 | 59 | 329 | 21 | 15 | 3.24 | 0.829 |
| 15. | Media reportage of flood management really proffered solutions to flood management | 57 | 262 | 71 | 74 | 14 | 3.57 | 0.985 |
| 16. | Media reportage of flood management did not really proffer solutions to flood management | 182 | 55 | 234 | 2 | 5 | 3.85 | 0.980 |
| 17. | Media reportage of flood management provided useful suggestions to managing flood. | 187 | 252 | 26 | 5 | 8 | 4.27 | 0.754 |
| 18. | Media reportage of flood management did not really provide useful suggestions to managing flood. | 84 | 36 | 328 | 19 | 11 | 3.34 | 0.892 |
| 19. | Media reportage of flood management helped residents to guide against future occurrence of flood in the area | 28 | 219 | 194 | 16 | 21 | 3.45 | 0.835 |
| 20. | Media reportage of flood management did not really help residents to guide against future occurrence of flood in the area | 48 | 204 | 120 | 85 | 21 | 3.36 | 1.026 |

Findings from the above show majority of the responses portray positive attitude towards media reportage of flood management as affirmed by the respondents. Also from the result, majority of the responses emanated from “Strongly Agree” and “Agree” responses as shown in Table 1 above.

Conversely, the remaining 9 responses that had mean scores that fall within the limit of real numbers for “Disagree” decision portray mostly negative attitudes towards media reportage of flood management.

The above responses indicating negative attitude towards mass media messages on flood management dwelt more on the language and channel of communication which the media used. Findings also reveal that respondents faulted the timing, language use and channel of communication employed in disseminating media reportage of flood management which is believed to be responsible for the negative attitude towards such messages.

The implication of this result is that, one’s predisposition to a media message is informed by the choice of language and channel through which such message is communicated and the suitability of the vehicle of communication to the frame of mind of the target audience.

Table 2:*Distribution of responses showing other factors that affect residents' attitude towards media reportage of flood management*

| S/N | Variables | Frequency | Percentage (%) |
|-----|---|------------|----------------|
| 1. | Poor funding by government | 49 | 11 |
| 2. | Abandoned projects (e.g. canals Dams, etc) | 7 | 1.5 |
| 3. | Blocked (or NO) canals | 6 | 1 |
| 4. | Complaints of government officials | 19 | 5 |
| 5. | Corruption | 66 | 16 |
| 6. | High cost of livelihood | 2 | 0.5 |
| 7. | Deceit (lack of will) by government | 4 | 1 |
| 8. | Government failure on projects | 100 | 24 |
| 9. | Government poor attitude (inability) to build Dams | 7 | 2 |
| 10. | Government insensitivity to victims of flood | 31 | 7 |
| 11. | Government lack of the right approach to tackling flood | 12 | 3 |
| 12. | Government non-compliance to environmental guidelines | 2 | 0.5 |
| 13. | Ineffective government policies | 7 | 2 |
| 14. | Insincerity by government | 2 | 0.5 |
| 15. | Lack of (trained) personnel | 36 | 9 |
| 16. | Lack of proper execution (implementation) plan | 6 | 1 |
| 17. | Poor communication (from government and media) | 8 | 2 |
| 18. | Poor planning (attention to flood victims) | 37 | 9 |
| 19. | Safety guide lacking | 12 | 3 |
| 20. | Lack of drainages | 6 | 1 |
| | Total | 419 | 100 |

The result in Table 2 above is on other factors that residents' attitude towards media reportage of flood management. From the result, majority of the respondents (100 representing 24%) identified government's failure to handle projects as a leading factor that affect their attitude towards media reportage of flood management. What this means is that since government failed in actualizing projects the masses turned their hearts away from complying with messages on how to manage flood. Another factor identified by the respondents include: "Corruption" as affirmed by 66 (16%) respondents. This is similar to the first factor mentioned. It is corruption that makes it difficult for government to fail in handling specific project. The third on the list is "poor funding by government". This was affirmed by 49 respondents (representing 11%). It is also traceable to the other two factors mentioned. When there is corruption in government, there will not be enough funds to carry out projects hence, the government will not be able to complete specific projects which they started.

The implication of the result is that institutional factors are the driving force to residents' display of good attitude towards messages that demand compliance from the same residents from the government. When the government do not play their role on issues that affect the livelihood of the citizens, there is bound to be withdrawal syndrome from the citizens on regulations or messages that demand compliance from the government.

Table 3: Distribution of responses showing residents’ practice of media reportage of flood management

| S/N | Variables | SA | A | D | SD | U | Mean | St.D |
|-----|--|-----|-----|-----|----|-----|------|-------|
| 1. | I find those media reportage of flood management quite useful | 169 | 131 | 40 | 2 | 136 | 3.41 | 1.634 |
| 2. | I anticipated unusual nature of flood based on mass media messages I received on flood management | 118 | 107 | 217 | 9 | 27 | 3.59 | 1.056 |
| 3. | I do not rely on media reportage of flood management because they are not consistent with real situations out there | 142 | 263 | 49 | 15 | 9 | 4.08 | 0.831 |
| 4. | I usually comply with the guidelines contained in the media reportage of flood management because they have been helpful | 75 | 106 | 275 | 5 | 17 | 3.45 | 0.893 |
| 5. | I do not give attention to media reportage of flood management because I do not live in a flood-prone area | 52 | 68 | 311 | 26 | 21 | 3.22 | 0.873 |
| 6. | I do what I have to do in order to manage flood irrespective of the kind of mass media messages I receive on flood management. | 119 | 262 | 52 | 24 | 21 | 3.91 | 0.973 |
| 7. | I see flood as a natural disaster that cannot be managed so I don’t bother considering the guidelines in the media reportage of flood management | 39 | 197 | 124 | 91 | 27 | 3.27 | 1.041 |
| 8. | I monitor the area where I live each time the rainy season is approaching to avoid flood based on what I learnt from media reportage of flood management | 39 | 147 | 136 | 16 | 140 | 2.85 | 1.349 |
| 9. | I have been giving attention to flood prone areas since I now know what is likely to cause flood based on media reportage of flood management | 55 | 208 | 182 | 13 | 20 | 3.55 | 0.886 |

Findings show that the practice of media messages found from the above result has 3 responses traced to mass media messages while the remaining 2 responses has nothing to do with media reportage of flood management. Those practices that has something to do with mass media messages showed how such messages impacted on practice in form of taking necessary precaution, complying to stipulated guidelines as contained in flood management messages and causes of flood which informs choice of residential area.

The decision rule tilting towards “Disagree” as found from the above responses showed that all but one of these decisions has bearing with knowledge about flood management based on mass media messages. Some of the factors responsible for such practices were found to include: “not finding such media messages useful; not giving attention to media messages on flood management because one does not reside on flood prone areas and seeing flood as a natural disaster that cannot be managed.”

The implication of the above result is that when individuals make decisions without having a strong basis for such decisions, it might lead to unhealthy environmental practices which is detrimental to the society. Certain information or messages received from the media help individuals make informed decisions but when these messages do not address their prevailing need or does not relate with their frame of thought, they tend to show negative disposition to such messages. Hence, there is the tendency that such messages can affect their practice of what is expected from them as contained in the message.

To a large extent, some kinds of information or messages communicated to a given audience must consider the prevailing need of the target audience and their pre-disposition to such message will go a long way in determining compliance with the content of the message based on the meaning intended by the sender.

Responses from the In-depth Interview showing emerging categories in the responses for various enquiries also revealed some implications.

The first implication is that the concept within the context of the study is that flood management agencies employ more of reactive approaches than preventive. The preventive approach they employed usually come in form of predictions.

The second implication is that the residents are expected to make good use of the preponderance of media reportage of flood alert, prevention and management available via the radio and other mass media. Also, there is the belief that synergy in message delivery and campaigns help to enhance effectiveness in sensitization.

The third implication of the results of the interview is that the outcome of residents' exposure to media reportage of flood management can be measured and its effectiveness was found to be relative and absolute to some extent when it gets to the grass-root.

A fourth implication of the finding is that due to the relativeness in the effect of media reportage of flood management found among the respondents, there is a preponderance of moderate knowledge which implies that the messages were simple to understand.

And another implication of the results is that there is a general belief that simple language expressions in message delivery aids understanding of the message. Since, language is a potent vehicle for communication, the understanding of any message in communication depends largely on the ease of use or simplicity of the language used.

Discussion of Findings

By level of exposure, the study meant how aware are the residents or what is their level of awareness or introduction to media messages on flood management. Findings from the study revealed that most married males between ages 42 and above who are Christians with secondary education as their educational qualification, most of whom have resided in flood-prone areas for more than 7 years were found to have been exposed to (heard or seen) (96.9%) media messages on flood management.

Incidentally, these category of residents were found to have been exposed to media messages on flood management occasionally (66.3%) and their main source of exposure was found to be radio (68.2%) and Television (23.4%). No doubt, exposure to media messages helps residents in flood-prone areas to make informed decisions on how to prevent or manage flood when it comes. This is in agreement with the findings from a similar study by Munro et al. (2017) on *effect of evacuation and displacement on the association between flooding and mental health outcomes*. In their words: "receiving timely warning prior to a flood was the only factor likely to limit the impact of flooding on mental and other health issues." Exposure to media messages on flood management

alone does not suffice to aid the prevention or management of flood as pointed out by Scholars on environmental issues (Rollason, et. al. 2018). From the above findings that corroborated the study, it is clear that residents hearing or seeing media messages on flood management alone is not enough. There is need to understand its implication and be actively involved in the daily compliance approaches expected of them to either prevent or manage flood when it comes. The understanding of a given media message is easily seen in appropriate compliance actions in line with expected results of the action.

The occasional exposure of residents to media messages on flood management can be traced to the individual residents' busy lifestyle or the mass media frequency of airing of such messages. If such media messages are aired more frequently than the exposure is likely to be more frequent. The implication of this finding is that people tend to attach importance to media messages that are frequently aired and this makes individuals to form their opinions around such messages as they affect their lifestyle.

The findings revealed that exposure to media messages on flood management influenced the residents' knowledge more on the area of prevention than on managing flood. The study further found increase in knowledge on "do not live around flood-prone area" to a very large extent as affirmed by (138 out of 478 respondents) and to some extent as affirmed by (310 out of 478 respondents).

Additional findings reveal increase in knowledge on "do not build houses close to the river or areas with large body of water" to a very large extent as affirmed by (138 out of 478 respondents) and to some extent as affirmed by (176 out of 478 respondents). This goes to show the level of importance people attach to messages on prevention than messages on management. This finding corroborated the finding from the in-depth interview where it was found that the focus of most of the media messages on flood management targeted preventive approaches than curative. From the in-depth interview responses, the study found that media messages (campaigns) were on "flood alerts", "flood predictions", "focusing on sensitive areas", and "providing guidelines on prevention" and so on.

More findings from the in-depth interview reveal that residents "believed in the effectiveness" of these messages if acted upon. There was also found a general average knowledge of these preventive approaches among residents in the study area.

The implication of this finding is that the extent to which this knowledge will affect their behavior will largely depend on how much they know and how much they agree with what they know. People do not easily act on what they do not believe in but in this study, it was found that residents believed in the messages they were exposed to and that it will have impact if they act on them. Hence, the extent to which knowledge can affect attitude and lifestyle is largely dependent on believability.

Findings revealed that most of the responses on attitude towards media messages on flood management were found more on positive attitude towards the media message. These ranges from the response that such messages "give good warning signals on flood" as affirmed

by (458 out of 478 respondents) (i.e. adding both “Strongly Agree” and “Agree” responses) as affirmed by (398 out of 478 respondents) and that it “provided useful suggestions to managing flood” as affirmed by (395 out of 478 respondents) and that it “gives out pre-flood warning on time” as affirmed by (383 out of 478 respondents). All the above positive attitudes that residents have about media messages on flood management points to the fact that they believed in those media messages. This goes to show that compliance or pre-disposition to compliance to a given message thrives on believability on that given message. Studies have shown that people largely act on media messages they believe can work for them (Cirella, & Iyalomhe, 2018; Lamond, Adekola, Adelekan, Eze and Ujoh, 2019), hence, residents in south-south Nigeria believed that if they act on media messages on flood management as presented by the media, it will work for them.

It was further found that an increase in knowledge leads to increase in (positive) attitude towards the content of that knowledge (media reportage of flood management). Hence, knowledge of media reportage of flood management significantly influenced residents’ attitude towards the content of such media messages in a positive way. Also findings from the in-depth interview responses reveal more of positive attitude towards media reportage of flood management. This study found that residents attitude towards media messages on flood management is directly proportional to their compliance to the messages as revealed in the responses from the in-depth interview.

The above finding is corroborated by the findings in a study carried out by Messner and Mayer (2006) cited in Christer (2013). In the study, they found that there is a paradigm shift moving on in flood research from the view that floods have to be presented as much as possible through flood protection, to the view that floods have to be managed in other ways. When individuals gain knowledge on how to mitigate flood they tend to form an attitude in that direction which is likely to enhance compliance in a positive way. The implication of this finding is that when media messages are targeted towards prevention, they tend to achieve more result than when they focus on management of the issue when it has occurred.

Findings reveal that residents saw media reportage of flood management useful to them in their daily practice more on prevention of flood. This ranges from responses like: “I find these media messages on flood management quite useful” as affirmed by (300 out of 478 respondents) (i.e. adding “Strongly Agree” and “Agree” responses) to responses like: “I anticipated unusual nature of flood based on media messages I received on flood management” and responses like: “I usually comply with the guidelines contained in the media messages on flood management because they have been quite useful”. All the above findings point to the usefulness of media reportage of flood management to residents’ daily lifestyle practice of flood prevention.

Further findings from the Test of Hypotheses revealed that there is a significant relationship between knowledge of media messages on flood management and residents’ practice of daily lifestyle of flood prevention. Also earlier findings mentioned that the knowledge that has

formed people's belief will produce positive attitude towards the content of the message you believed in which was now found to have impacted greatly in practice.

More importantly, these practices found among residents in south-south Nigeria were more on flood prevention than on flood management. These practices were found to have relied heavily on media reportage of "flood alert", "flood prediction", "not living around flood-prone areas" and so on. Further findings from the in-depth interview responses revealed that respondents believe that media reportage of flood management have helped them in taking prompt action to mitigate flood and to maximise every useful opportunity to guide against future flood disaster. This gave rise to the concept of "Relief/Effort" found in the thematic analysis of responses from the in-depth interview as it shows relatedness in the emerging categories that emanated from the responses.

Studies have shown that people tend to be relieved when they act on what they believe will work for them based on what they know and understand about what they should do about it (Messner and Mayer, 2006; Lamond, Adekola, Adelekan, Eze and Ujoh, 2019). From the findings in this study, there is a connection between believe and positive attitude as well as compliance and practice in the direction of what is known and understood. Knowledge affect behaviour or attitude in the direction of what is known and believed in. This was found to be true in this study as residents' knowledge of media reportage of flood management which was found to be more on prevention of flood and this largely influenced a positive attitude towards the media message which resulted in positive compliance and lifestyle practice towards flood prevention.

The findings from the factor analysis reveal factors that hinder the influence of media reportage of flood management on the knowledge, attitude and practices of residents in south-south Nigeria. These factors were grouped into three (3) categories based on their factor loading that necessitated the naming of each of the groups. The major factors found to have hindered the influence of media reportage of flood management on the knowledge, attitude and practices of residents were grouped under factor 2 with the name: "Administrative and Economic Factors". These include:

- Managerial inefficiency leading to neglect of flood management projects
- The problem of accommodation due to high cost of living
- Relocation out of emergency and pressure

These factors are associated with administrative bottle-necks in funding projects as well as the economic factor of high cost of living. These administrative bottle-necks also result in relocation out of emergency and pressure due to delay information.

Other factors found to have hindered the influence of media reportage of flood management on the knowledge, attitude and practices of residents were grouped as factor 1 (institutional factors) and factor 5 (individual factors). The former includes:

- Lack of manpower to enforce compliance to flood guidelines
- Nature of land tenure system being practised
- Poverty

While the latter includes:

- Fear of the nature of hazard it might cause
- Lack of necessary skill that aid compliance

The institutional factors has to do with the kind of systems (i.e. political or economic) in operation in the study area while the individual factors are traced to short-coming from the residents in the study area.

This finding is corroborated by the findings from the in-depth interview where the major factor found to hinder the influence of media reportage of flood management on the knowledge, attitudes and practices of residents was “poverty” (economic and individual factors). This can be caused both by the government and also by the individuals themselves. The implication of these findings is that even though media messages can be powerful with the tendency to wield expected influence on audience, if there are militating factors capable of hindering their influence on knowledge, attitudes and practices such media messages cannot go far or achieve the desired or expected result.

6. Conclusion

The influence of media reportage of flood management on the knowledge, attitude and practices of residents in south-south Nigeria is largely dependent on series of factors which include: The level of exposure to such media messages; the understanding of such media messages; the believability of the media messages; the positive attitude built from the believe in the media messages, and the expected believe in the outcome when practiced.

This study therefore concludes that there is a connection between exposure to media messages and its believability over time in what is understood in the media message (Agenda Setting) as well as the positive attitude developed as a result of what is believed about the media message. This correlates with the theory of Reasoned Action and Planned Behaviour adopted for this study, which emphasised that a person's readiness to perform a certain behaviour (behavioural intention) or respond to the agenda set by the media is predicated on (i) the person's attitude toward the behaviour, and (ii) subjective norms regarding the behaviour. Also, no matter how effective a media message is, if there are factors capable of hindering its effectiveness (i.e. influence) in place, such media message effectiveness may not be felt as expected.

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