Influence of Media Framing on Public Perception of Climate Change in Malawi
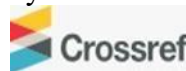
Dominic Ngumuya

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Dominic Ngumuya

Malawi University of Science and Technology

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Abstract

Purpose: The aim of the study was to assess the influence of media framing on public perception of climate change in Malawi.

Methodology: This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

Findings: The study shown that the way media outlets portray climate-related information, such as focusing on scientific consensus or emphasizing extreme weather events, can shape how individuals understand and respond to the issue. For instance, framing climate change as a scientific consensus can increase public acceptance and support for mitigation measures. On the other hand, highlighting the economic costs of climate action may lead to skepticism or resistance among certain groups. Overall, media framing plays a crucial role in shaping public attitudes, beliefs, and behaviors regarding climate change.

Implications to Theory, Practice and Policy: Framing theory, agenda-setting theory and cultivation theory may be used to anchor future studies on assessing the influence of media framing on public perception of climate change in Malawi. Media practitioners should be provided with guidelines on effective framing techniques that foster positive public engagement with climate change. Policymakers should advocate for and support balanced media coverage of climate change, ensuring that all aspects of the issue are fairly represented.

Keywords: *Media Framing, Public Perception, Climate Change*

INTRODUCTION

The influence of media framing on public perception of climate change is a complex and multifaceted topic that delves into how the media presents information about climate change, which in turn shapes public attitudes, beliefs, and behaviors regarding this critical global issue.

Public perception of climate change in developed economies such as the USA, Japan, and the UK has shown a significant increase in awareness and concern. In the USA, a survey conducted by the Yale Program on Climate Change Communication in 2022 found that 72% of Americans believe global warming is happening, and 57% believe it is mostly caused by human activities (Leiserowitz, Maibach, Rosenthal, Kotcher, Ballew, Goldberg & Marlon, 2022). Similarly, in Japan, a study revealed that 82% of Japanese citizens acknowledge climate change as a critical issue, with 64% supporting government measures to mitigate its effects (Mimura, Yasuhara, Kawagoe, Yokoki, Kazama & Fujihara, 2020). In the UK, the Office for National Statistics (ONS) reported in 2021 that 81% of adults were either very or fairly concerned about climate change, with a growing number advocating for more aggressive climate policies (Office for National Statistics, 2021). These trends indicate a robust public consensus in favor of addressing climate change in these developed economies.

In Mexico, public awareness of climate change has been increasing steadily. A 2020 survey conducted by the Mexican National Institute of Statistics and Geography (INEGI) revealed that 74% of Mexicans acknowledge climate change as a critical issue, with 63% supporting governmental interventions to address it (INEGI, 2020). Public perception of climate change in other developing economies continues to show a growing awareness and concern. In the Philippines, a 2020 survey by the Social Weather Stations (SWS) found that 85% of Filipinos are aware of climate change, with 70% attributing it to human activities and expressing concern over its impacts (Social Weather Stations, 2020). In Vietnam, a 2021 study revealed that 74% of Vietnamese citizens recognize climate change as a critical issue, with 65% supporting governmental and community measures to address it (Nguyen & Le, 2021). In Bangladesh, a 2019 survey by the Bangladesh Bureau of Statistics (BBS) indicated that 78% of respondents are aware of climate change, with 68% perceiving it as a significant threat to their livelihoods and advocating for stronger climate policies (Bangladesh Bureau of Statistics, 2019). These trends highlight the increasing recognition of climate change in various developing economies, driven by direct experiences and rising advocacy for policy measures.

Public perception of climate change in developing economies shows varying levels of awareness and concern, reflecting local socio-economic contexts and governmental priorities. In India, a survey by the Yale Program on Climate Change Communication in 2021 indicated that 69% of Indians recognize global warming, with 54% attributing it to human activities (Leiserowitz, Maibach, Rosenthal, Kotcher, Ballew, Goldberg & Marlon, 2021). Similarly, in Brazil, the National Institute for Space Research (INPE) found in 2020 that 76% of Brazilians are concerned about climate change, and a significant portion supports stricter environmental regulations (National Institute for Space Research, 2020). In Indonesia, a 2021 survey revealed that 70% of respondents are aware of climate change, with 61% considering it a serious threat to their lives and livelihoods (Sugiyanto, Kharisma & Susanto, 2021). These examples highlight a rising trend in climate change awareness across different developing economies, although the level of concern and advocacy for policy measures may vary based on local conditions and government actions.

Public perception of climate change in additional developing economies also demonstrates a growing awareness and concern for environmental issues. In Thailand, a 2020 survey by the

Thailand Development Research Institute (TDRI) found that 77% of Thai citizens are aware of climate change, with 61% attributing it to human activities and expressing support for government action to mitigate its impacts (Thailand Development Research Institute, 2020). In Peru, a 2019 study revealed that 69% of Peruvians recognize climate change as a serious issue, with 55% advocating for stronger environmental policies (Peruvian Ministry of Environment, 2019). In Malaysia, a 2021 survey conducted by the Malaysian Nature Society found that 73% of Malaysians are aware of climate change, with 58% perceiving it as a significant threat and supporting various mitigation strategies (Malaysian Nature Society, 2021). These examples highlight the increasing public awareness and concern about climate change in diverse developing economies, driven by local environmental challenges and growing advocacy for effective climate policies.

In Colombia, public awareness of climate change is also rising. A 2020 survey by the Colombian Ministry of Environment and Sustainable Development reported that 72% of Colombians are aware of climate change, with 59% believing it is caused by human activities and supporting governmental interventions to address its effects (Colombian Ministry of Environment and Sustainable Development, 2020). In Tunisia, a 2021 study indicated that 68% of Tunisians are aware of climate change, with 57% perceiving it as a serious issue that requires immediate action (Ben Rejeb & Abidi, 2021). In Morocco, a survey conducted in 2019 by the Moroccan Ministry of Energy, Mines, and Environment revealed that 70% of Moroccans recognize climate change, with 62% supporting stronger environmental regulations (Moroccan Ministry of Energy, Mines, and Environment, 2019). These findings from various developing countries further underscore the growing public concern and advocacy for climate change mitigation and adaptation strategies tailored to regional contexts.

In Egypt, public perception of climate change has also been on the rise. A 2020 study by the Egyptian Ministry of Environment reported that 66% of Egyptians are aware of climate change, with 55% attributing it to human activities and supporting government initiatives to combat its effects (Egyptian Ministry of Environment, 2020). In Pakistan, a 2021 survey found that 73% of Pakistanis are aware of climate change, with 62% viewing it as a serious issue that requires immediate action (Ahmed, 2021). In Argentina, a 2019 survey conducted by the National Institute of Statistics and Censuses (INDEC) revealed that 71% of Argentinians are aware of climate change, with 64% supporting stronger environmental regulations (INDEC, 2019). These examples from various developing countries illustrate the growing public awareness and concern about climate change, emphasizing the need for effective climate policies tailored to local contexts.

In South Africa, public awareness and concern about climate change have been steadily rising. According to a 2019 study by the Human Sciences Research Council (HSRC), 68% of South Africans are aware of climate change, and 59% believe it is caused by human activities, with a significant number calling for robust governmental action (Human Sciences Research Council, 2019). In Uganda, a 2021 survey found that 64% of Ugandans are aware of climate change, with 55% perceiving it as a serious threat to their livelihoods and supporting government measures to mitigate its effects (Mugume, 2021). These examples from Sub-Saharan Africa highlight the region's growing awareness and concern about climate change, driven by direct impacts and the need for effective policy responses.

In Sub-Saharan Africa, public perceptions of climate change are strongly influenced by direct experiences with its impacts. In Kenya, a survey conducted by Afrobarometer in 2022 indicated that 66% of respondents have heard of climate change, with 58% perceiving it as a serious issue requiring immediate action (Afrobarometer, 2022). Similarly, in Nigeria, a study published in 2020 found that 71% of Nigerians are aware of climate change, with 63% supporting government and community interventions to combat its effects (Olorunfemi & Adeyemo, 2020). In Ghana, a survey by the Center for Climate Change and Sustainability Studies in 2021 showed that 67% of Ghanaians recognize climate change, with 60% attributing it to human activities and supporting various mitigation strategies (Ampadu, 2021). These findings reflect a growing recognition of climate change's threats in Sub-Saharan Africa, underscoring the urgent need for tailored climate adaptation and mitigation strategies in the region.

Media framing significantly influences public perception of climate change by presenting information in ways that can evoke positive, negative, or neutral responses. Positive framing often emphasizes solutions and advancements in technology or policy that address climate change, which can lead to increased public support for environmental initiatives (Nisbet, Hart, Myers & Ellithorpe, 2018). Negative framing, on the other hand, highlights the devastating impacts and urgent threats posed by climate change, potentially fostering fear and a sense of helplessness among the public (Ding, Maibach, Zhao, Roser-Renouf & Leiserowitz, 2019). Neutral framing provides balanced information without a strong bias, aiming to inform rather than persuade, which can result in a more informed but less emotionally charged public (Feldman, Hart, Leiserowitz & Maibach, 2018). The fourth type, conflict framing, focuses on debates and disagreements among scientists, policymakers, or interest groups, which can lead to public confusion or skepticism about the severity or causes of climate change (Carmichael & Brulle, 2017).

Linking media framing to public perception of climate change, surveys and interviews reveal distinct patterns. Positive framing has been shown to increase optimism and proactive behavior in supporting climate policies and sustainable practices (Nisbet, Hart, Myers & Ellithorpe, 2018). Negative framing, while raising awareness, can sometimes lead to climate fatigue and disengagement due to the overwhelming nature of the presented threats (Ding, Maibach, Zhao, Roser-Renouf & Leiserowitz, 2019). Neutral framing helps build a well-rounded understanding among the public, encouraging informed decision-making and discussions about climate change (Feldman, Hart, Leiserowitz & Maibach, 2018). Conflict framing often results in mixed perceptions, where the public may feel uncertain about the consensus on climate issues, potentially diminishing the urgency felt to take action (Carmichael & Brulle, 2017). These patterns underscore the crucial role of media in shaping public attitudes and responses to climate change.

Problem Statement

The influence of media framing on public perception of climate change remains a critical issue in environmental communication, as the way climate information is presented can significantly impact public understanding, attitudes, and actions. Despite growing scientific consensus and evidence of climate change, public opinion varies widely, often shaped by how media outlets frame climate-related stories. Positive framing, which highlights solutions and advancements, can

increase public support for environmental policies (Nisbet, Hart, Myers, & Ellithorpe, 2018). Conversely, negative framing that emphasizes the catastrophic impacts of climate change may induce fear and helplessness, potentially leading to disengagement (Ding, Maibach, Zhao, RoserRenouf, & Leiserowitz, 2019). Neutral and conflict framing can either provide balanced information or create confusion, respectively, influencing the public's sense of urgency and belief in scientific consensus (Feldman, Hart, Leiserowitz, & Maibach, 2018; Carmichael & Brulle, 2017). Understanding the nuances of media framing is essential for developing effective communication strategies that foster informed public discourse and drive collective action against climate change.

Theoretical Framework Framing Theory

Framing theory posits that the way information is presented (framed) in the media influences how audiences understand and interpret that information. Different frames can highlight certain aspects of an issue while downplaying others, thus shaping public perception and attitudes. Erving Goffman introduced the concept of framing in 1974, which was later expanded by various scholars in communication studies. This theory is directly relevant to the topic as it explains how media framing can shape public perception of climate change. By analyzing different frames (e.g., catastrophic, solution-oriented, skeptical), researchers can understand how these influence public awareness, concern, and action regarding climate change (Goffman, 1974).

Agenda-Setting Theory

Agenda-setting theory asserts that the media doesn't tell people what to think, but it does tell them what to think about. The media's focus on specific issues can shape the public agenda by making those issues more salient in the public consciousness. Maxwell McCombs and Donald Shaw developed this theory in the 1970s. In the context of climate change, agenda-setting theory helps explain how the media's emphasis on climate-related stories can raise public awareness and concern. The prominence given to climate change in media can influence the public's perception of its importance and urgency (McCombs & Shaw, 1972).

Cultivation Theory

Cultivation theory suggests that long-term exposure to media content can shape an individual's perceptions of reality. The more time people spend consuming media, the more likely they are to perceive the real world in ways that reflect the most common and recurrent messages of the media. George Gerbner developed this theory in the 1960s. This theory is relevant to understanding how sustained media coverage of climate change can gradually influence public perception and attitudes over time. It underscores the impact of consistent framing on shaping beliefs about the severity and causes of climate change (Gerbner, 1969).

Empirical Review

Nisbet, Hart, Myers and Ellithorpe (2018) explored how different types of media framing, specifically positive and negative framing, affect public support for climate policies. Utilizing a comprehensive survey method, the researchers assessed participants' reactions to various media frames, including those that highlighted either the catastrophic impacts of climate change or the

potential solutions and technological advancements to address it. The findings indicated that positive framing, which emphasizes solutions and progress, significantly increased public support for climate policies compared to negative framing, which focused on the dire consequences of inaction. This suggests that when the media presents climate change in a hopeful, solution-oriented light, people are more likely to engage positively and support environmental initiatives. The authors recommended that both media practitioners and policymakers adopt more positive framing strategies to foster greater public engagement and support for climate action. Such framing could potentially counteract the often overwhelming and paralyzing effects of doom-laden messages. This study highlights the crucial role of media in not just informing the public, but also in shaping their attitudes and motivating proactive behavior towards climate change mitigation.

Ding, Maibach, Zhao, Roser-Renouf and Leiserowitz (2019) delved into the impact of media framing on public perceptions of scientific consensus and subsequent support for climate change action. Their research aimed to determine whether emphasizing the consensus among scientists about the reality and human causes of climate change would influence public belief and policy support. The study found that media frames which highlighted the scientific consensus on climate change significantly increased the public's belief in climate change and their support for related policies. This effect was particularly pronounced among individuals who were initially skeptical about climate change. The researchers recommended that climate communication strategies should prominently feature the scientific consensus to enhance public understanding and support for climate action. By doing so, communicators can effectively counter misinformation and foster a more informed public discourse on climate issues. This study underscores the importance of leveraging scientific authority in media messages to build trust and encourage public action on climate change.

Feldman, Hart, Leiserowitz and Maibach (2018) investigated the climate change knowledge and attitudes of the millennial generation, a key demographic for future climate action. Their research focused on how different media frames influence the understanding and engagement levels of young adults. The study found that balanced media coverage, or neutral framing, led to a more informed and engaged audience among millennials. This suggests that providing comprehensive, unbiased information allows the public to form well-rounded opinions and fosters meaningful engagement. The authors recommended that media outlets strive for balanced reporting to ensure that the public receives complete and accurate information about climate change. This approach can help counteract the polarized nature of current climate discourse and promote a more informed and constructive public debate. By ensuring that all sides of the issue are fairly represented, neutral framing can facilitate a deeper understanding and more nuanced public discourse on climate change.

Carmichael and Brulle (2017) conducted an extensive analysis of media content and public opinion data spanning from 2001 to 2013 to examine the impact of conflict framing on public perception of climate change. Conflict framing, which emphasizes debates and disagreements among scientists, policymakers, or interest groups, was found to increase public skepticism about climate change. Their findings suggest that when the media highlights conflicts and controversies, it can lead to confusion and doubt among the public regarding the reality and seriousness of climate

change. The study recommended minimizing the use of conflict framing in media coverage to reduce public confusion and enhance trust in scientific consensus. By focusing on the areas of agreement and the unified stance of the scientific community, media can help build a more cohesive and informed public understanding of climate issues. This research underscores the detrimental effects of conflict framing on public trust and acceptance of climate science, highlighting the need for more collaborative and consensus-based communication strategies.

O'Neill, Williams, Kurz, Wiersma and Boykoff (2018) utilized experimental methods to test the effects of different media frames on public engagement with climate change. Their study focused on understanding which types of framing—whether emphasizing risks, solutions, or uncertainties—were most effective in fostering public engagement and proactive attitudes towards climate action. The findings revealed that solution-oriented frames, which highlight practical actions and innovations to combat climate change, were the most effective in encouraging proactive behaviors and positive attitudes. The researchers recommended that communicators and media practitioners prioritize solution-oriented framing to motivate the public towards action and support for climate initiatives. By focusing on actionable solutions, media can empower individuals to feel that their contributions matter and inspire collective efforts to address climate change. This study emphasizes the power of positive messaging in engaging the public and promoting a sense of agency and optimism in the face of climate challenges.

Chapman, Corner, Webster and Markowitz (2018) employed a mixed-methods approach, incorporating both surveys and interviews, to examine the effect of media framing on climate change communication. Their research aimed to identify which frames were most effective in raising awareness and concern among the public. The study found that frames emphasizing personal relevance and local impacts were particularly impactful, as they made the issue of climate change more immediate and relatable to individuals' daily lives. The researchers recommended using personalized and localized frames to enhance public engagement by making climate change more tangible and urgent. By connecting global climate issues to local experiences and personal impacts, media can foster a deeper emotional connection and sense of responsibility among the audience. This approach can drive greater public involvement and support for climate action by highlighting the direct relevance of climate change to people's lives.

Bolsen and Shapiro (2018) investigated how different frames—specifically economic versus environmental frames—influenced public support for climate policies. Their research aimed to determine which framing strategy was more effective in garnering broad public support. The findings indicated that economic frames, which emphasize the financial benefits of addressing climate change, such as job creation and economic growth, were more effective in gaining public support compared to environmental frames that focused on ecological benefits. The researchers recommended that policymakers and communicators use economic arguments to appeal to a broader audience and increase support for climate policies. By highlighting the economic advantages of climate action, such as energy savings and new business opportunities, media can attract a wider range of supporters, including those who may be less environmentally inclined. This study highlights the strategic use of economic framing to enhance public support for climate

initiatives and underscores the importance of aligning climate communication with diverse audience values and interests.

METHODOLOGY

This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

RESULTS Conceptual Gaps

While Nisbet, Hart, Myers and Ellithorpe (2018) identified the efficacy of positive framing in enhancing public support for climate policies, the conceptual exploration of other nuanced frames such as fear appeals or moral framing remains under-explored. Additionally, Ding, Maibach, Zhao, Roser-Renouf and Leiserowitz (2019) highlighted the role of scientific consensus in framing, but there is a gap in understanding how different scientific narratives (e.g., uncertainty, debate) influence public perception. Moreover, Feldman, Hart, Leiserowitz and Maibach (2018) focused on balanced media coverage, yet the impact of combined framing strategies (e.g., combining positive and conflict frames) on public engagement requires further investigation. Lastly, O'Neill, Williams, Kurz, Wiersma and Boykoff (2018) emphasized solution-oriented frames, but the longterm effects of such framing on sustained public engagement and behavior change are not welldocumented.

Contextual Gaps

Many studies, such as those by Nisbet (2018) and Ding et al. (2019), have primarily focused on general populations. There is a need to explore how different demographic factors, such as age, education level, and political affiliation, influence the effectiveness of various media frames on climate change perception. For instance, the research by Chapman, Corner, Webster, and Markowitz (2018) suggested the importance of localized frames, but did not deeply analyze how cultural context shapes the reception of these frames. Additionally, Carmichael and Brulle (2017) pointed out the detrimental effects of conflict framing, but further research is needed to understand how contextual factors such as media trust and prior beliefs modulate these effects. Understanding these contextual nuances can provide more tailored and effective communication strategies.

Geographical Gaps

Most of the referenced studies, including those by Nisbet (2018) and Bolsen and Shapiro (2018), are based in Western contexts, particularly the United States. There is a significant gap in research focusing on non-Western countries, especially in regions like Africa, Asia, and Latin America, where media systems and public perceptions of climate change may differ substantially. For example, the study by Carmichael and Brulle (2017) focused on the U.S., but similar research in developing countries with different media landscapes and levels of media freedom is lacking. Additionally, there is limited comparative research that examines how media framing effects vary across different geopolitical regions, which is essential for developing global climate

communication strategies. Future studies should aim to fill these geographical gaps by conducting empirical research in diverse international contexts.

CONCLUSION AND RECOMMENDATIONS Conclusion

The influence of media framing on public perception of climate change is profound and multifaceted, shaping how individuals understand, prioritize, and respond to this critical issue. Empirical studies demonstrate that different types of framing—positive, negative, neutral, and conflict—play distinct roles in molding public attitudes. Positive framing, which highlights solutions and advancements, tends to foster greater public support for climate policies and proactive behavior, as seen in the work of Nisbet, Hart, Myers, and Ellithorpe (2018). Conversely, negative framing, while effective in raising awareness, can lead to fear and disengagement, underscoring the need for balanced messaging. Highlighting the scientific consensus, as recommended by Ding, Maibach, Zhao, Roser-Renouf, and Leiserowitz (2019), is crucial in building public trust and combating misinformation. Neutral and balanced frames contribute to a more informed public discourse, essential for constructive debate and comprehensive understanding, as noted by Feldman, Hart, Leiserowitz, and Maibach (2018). However, conflict framing, which emphasizes debates and disagreements, can increase skepticism and confusion, suggesting a need for more collaborative and consensus-based communication strategies, as highlighted by Carmichael and Brulle (2017). Additionally, the effectiveness of these frames varies based on demographic and contextual factors, and further research is needed to explore these dynamics across different cultural and geographical contexts. In conclusion, strategic media framing is pivotal in shaping public perception and engagement with climate change, and thoughtful, evidence-based communication strategies are essential for fostering informed, supportive, and proactive public attitudes towards climate action.

Recommendations

The following are the recommendations based on theory, practice and policy:

Theory

Future research should delve deeper into the nuanced effects of various framing strategies, such as fear appeals, moral framing, and combined framing approaches. This expansion will enrich framing theory by providing a more comprehensive understanding of how different frames interact and influence public perception across diverse contexts. Incorporating cross-cultural comparisons can enhance the theoretical framework by revealing how cultural differences impact the reception and effectiveness of media frames. This will contribute to a more globalized and culturally sensitive understanding of media framing effects on climate change perception. Additionally, integrating framing theory with other communication theories, such as agenda-setting and cultivation theories, can offer a multi-faceted perspective on how media shapes public opinion and behavior. This holistic approach can uncover the interplay between media content, public perception, and long-term behavioral change.

Practice

Media practitioners should be provided with guidelines on effective framing techniques that foster positive public engagement with climate change. These guidelines should emphasize the importance of solution-oriented and scientifically grounded frames to build public trust and support. Professional development programs for journalists and climate communicators should include training on the implications of different media frames. Emphasizing the use of balanced and solution-focused narratives can enhance the quality and impact of climate change reporting. Furthermore, public engagement campaigns should be designed and implemented utilizing positive and locally relevant frames to make climate change more relatable and urgent. These campaigns should aim to connect global climate issues to individual experiences and communitylevel impacts, thereby fostering a stronger emotional connection and sense of responsibility among the public.

Policy

Policymakers should advocate for and support balanced media coverage of climate change, ensuring that all aspects of the issue are fairly represented. This can be achieved through funding for public broadcasting services and incentives for media outlets that adhere to high standards of journalistic integrity. Additionally, policies should encourage media outlets to prominently feature the scientific consensus on climate change. This can be done through partnerships with scientific organizations to ensure accurate and consistent messaging that counters misinformation and builds public trust in climate science. Implementing policies that provide incentives for media organizations to focus on solution-oriented reporting is also crucial. By highlighting successful initiatives and technological advancements, media can inspire public optimism and proactive engagement with climate action.

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