

**Federal State Autonomous Educational Institution  
Of Higher Education  
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA  
(RUDN)**

As a manuscript

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**ASSESSING IMPACTS OF INFORMATION POLLUTION ON SELECTED  
NIGERIAN(2015, 2019) AND GHANAIAN(2016, 2020) PRESIDENTIAL  
ELECTIONS: EVALUATION MODELING**

**Speciality 5.9.9. Media Communications and Journalism**

Dissertation for a PhD degree  
In Philological Sciences

Scientific Supervisor:  
Doctor of Sciences, Professor  
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Moscow 2022

Федеральное государственное автономное образовательное учреждение  
высшего образования  
«Российский университет дружбы народов» (РУДН)

*На правах рукописи*

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**ОСОБЕННОСТИ ВОЗДЕЙСТВИЯ ИНФОРМАЦИОННОГО  
ЗАГРЯЗНЕНИЯ НА ПРЕЗИДЕНТСКИЕ ВЫБОРЫ В НИГЕРИИ (2015,  
2019 г.г.) И ГАНЕ (2016, 2020 г.г.): ОЦЕНОЧНОЕ МОДЕЛИРОВАНИЕ**

**Специальность 5.9.9. Медиакоммуникации и журналистика**

Диссертация  
на соискание ученой степени  
кандидата филологических наук

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Москва – 2022

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## Introduction

**The relevance of the study.** Numerous studies in the literature focus on various aspects of information pollution in various places throughout the world. Many of these studies are carried out in the global north [Rowbottom., 2012;Hansen & Lim 2019; Rowbottom; 2012], rather than the global south, which includes Ghana and Nigeria as developing countries are part of. According to a review of recent studies, information pollution has been studied with a focus on misinformation, disinformation, and mal-information to reveal how the typologies impacted democracy, particularly the electoral process cycle and stakeholders in the various institutions expected to work diligently towards the institutionalisation of sustainable democracy [for example, see Parahita, 2019; Meel & Vishwakarma, 2020]. In various democracies, each of the typologies has been explored about the numerous outcomes that befall the targets, society, and institutions. The focus of the scholars who studied misinformation and disinformation forms of information pollution, which are available to researchers, was largely on how the forms have affected or threatened electoral integrity and democratic ideals in all ramifications [Faris, Roberts, Etling, Bourassa, Zuckerman, & Benkler, 2017; Baptista & Gradim, 2020; Zimmermann & Kohring, 2020; Okolie, Enyiazu & Nnamani, 2021; Recuero, Soares & Gruzd, 2020; Pierri, Artoni & Ceri, 2020; Jones-Jang, Kim & Kenski, 2021; Chang, Haider & Ferrara, 2021; Nisbet, Mortenson & Li, 2021]. Some studies looked into the effects of spreading incorrect and misleading information on voter reactions and candidate selection during elections [Hansen & Lim., 2019; Keller & Klinger., 2019]. Fake news and propaganda have been extensively investigated as variables of interest in understanding how voters perceive candidates, actors in the political and electoral institutions [Makulilo, 2013; Parahita, 2019; Mazaira-Castro, Ras-Arajo & Puentes-Rivera, 2019; Machado, Kira, Narayanan, Kollanyi & Howard, 2019; Meel & Vishwakarma, 2020; Galeotti, 2021]. As previously indicated, none of these studies has focused specifically on how information pollution influenced the electoral

process, electorate, and outcome of presidential elections in Ghana and Nigeria. The majority of these studies have examined information pollution dangers to democracy and governance from the perspective of digital platforms, using actors' and non-actors' social media activities and their influences on traditional media. The current study aims to close these gaps through exploration of frequency and patterns in which misinformation and disinformation circulates during elections among the democracy actors and device possible solutions to combat them.

After many decades of the usage of information for various aspects of life and the clamouring for the importance of it to be accessible and enough with the realization of its power in shaping the world, the advent of technology and active advocacy later made this a reality. However, this information has become polarized that there is more than needed and the quality keeps on diminishing. The terms polarisation, pollution and disorderliness of information have become dominant phenomena of today's world, from politics to science, government to society and the media. If nothing, the 2016 election in the United States of America opens this [Mourão & Robertson, 2019] and the advent of COVID19 which made the director-general of the World Health Organisation pronouncement of the world facing another dangerous issue along COVID19 called 'infodemic'. These are the results of new awakening realities across the world, from the West to the East, and North to the global South which called for special attention to find means in combating the menace.

Though the usage of information pollution is not new such as propaganda, conspiracy theories, misinformation [Mourão & Robertson, 2019] and other subsets of it but what is different and making it more complicated nowadays is the emergence of the digital media that once believed to be a solution and a key tool for digital and effective democracy which is now being hijacked by the bipartisan political actors to achieve the personal objectives [Morozov, 2011; Iosifidis & Nicoli, 2020]. With this, combating information pollution becomes more difficult turning to tools of division



instead of connection [Wardle & Derakhshan, 2017] and poses one of the greatest threats to democracy in the digital age [Iosifidis & Nicoli, 2020]. Another thing about mis/disinformation's effects on democracy is that, even in cases where the intention of their creator may fail, it still leaves great negative marks in undermining the process of democracy and poses future threats. Also, issues of trust in the governmental institution, among the members of the community, media outlets and platforms are becoming bigger challenges facing the growth of democracy and its sustainability across the world [Schwanholz, Graham, & Stoll, 2018].

African countries, like many of their contenders in other regions of the world, have also been struggling with the necessary measures to combat the menace of information pollution through regulation and other necessary actions, however, many of these actions tend to collide with some pillars of democracy such as freedom of information, freedom of expression, or press freedom [Ahinkorah, B. O., et al., 2020; Porter, E., & Wood, T. J., 2021; Tully, M., et al., 2021; Cunliffe-Jones, P., et al., 2021; Cunliffe-Jones, P., et al., 2021; Edward, A., Ifeanyi, M.N., Sarah, E., 2021, March 8]. In Nigerian and Ghanaian politics, the nature of information pollution is arguably surrounded and fueled by politics. Even though the other key issues such as religion, ethnicity and society are also instigated through the political agenda which are going to be further explored in the literature and the findings of the research. One of the biggest threats to finding solutions to the issue of information disorder is the advancement of technologies and proliferation of media which poses a tendency for infringement on freedom of expression and press freedom while governments are trying to curtail them [Bakir, V., & McStay, A., 2018; Pherson, R. H., Mort Ranta, P., & Cannon, C., 2021; Seo, H., et al., 2021; Liu, L., Zhang, W., & Han, C., 2021; Meyer, K. R., Carpenter, N. J., & Hunt, S. K., 2022; Ebhonu, S. I., & Onobrakpor, U. D., 2021]. Like other countries in the world, Ghana and Nigeria are not exempted from countries experiencing information pollution [Rasak, 2012; Asunka, Brierley, Golden, Kramon & Ofosu, 2019; Kerry, 2021]. Both Nigeria and Ghana are in West

Africa and are former British colonies that maintained almost the same system of governance left for them by the colonial master. The two countries also have English as the official language. Looking at the two previous elections by the two countries, they all fall between two different eras of elections in the 21st century. First in 2015 and 2016 which were in the era before the popularity of misinformation and disinformation with some tools of information pollution like propaganda conspiracy theories among others. Second, in 2019 and 2020 which were in the era of misinformation, disinformation popularity and domination.

For the two presidential elections studied, the submission has been that information pollution was highly deployed [Baje, 2014; *Reporters Without Borders*, 2019; Hassan 2019] and caused lots of problems among the actors and citizens, which left lots of holes that are yet to be filled in the society. This poses a great danger to the growth of democracy and effective governance in the region. In such a region with lots of complex realities and issues such as multi-religion, multi-cultures, inter-tribes, ongoing issues that are yet to be resolved (civil wars, terrorism), high level of illiteracy, and dangling growth of democracy and good governance, it is important to pay critical attention to ways on how to curb or mitigate the effects of information disorder [Marinov, 2020]. Therefore, in line with this background, this study examines the impacts of distorted, false and misleading information created and spread by the actors before and during the two elections on the electoral process, electorate and outcomes of the elections.

**The degree of scientific elaboration of the topic.** In various democracies, each of the typologies of information pollution has been explored about the numerous outcomes that befall the targets, society, and institutions by scholars around the world including in Ghana and Nigeria. More studies on misinformation and disinformation as forms of information pollution on how the forms have affected or threatened electoral integrity and democratic ideals in all ramifications are now increasing and available to researchers. Some studies equally looked into the effects of spreading

incorrect and misleading information on voter reactions and candidate selection during elections. Fake news and propaganda have been extensively investigated as variables of interest in understanding how voters perceive candidates and actors in the political and electoral institutions.

This study pays keen attention to the works of scholars such as; Chang, H.H., Haider, S., & Ferrara, E., (2021); Freelon, D., & Wells, C. (2020); Hassan, I., (2019); Iosifidis, P., & Nicoli, N. (2020); Jones-Jang, S. M., Kim, D. H., & Kenski, K. (2021); Machado, C., Kira, B., Narayanan, V., Kollanyi, B., & Howard, P. (2019); Makulilo, A. B. (2013); Mazaira-Castro, A., Rúas-Araújo, J., & Puentes-Rivera, I., (2019); Marinov, N. (2020); Meel, P., & Vishwakarma, D. K. (2020); Morozov, E. (2011); Mourão, R. R., & Robertson, C. T. (2019); Nisbet, E.C., C. Mortenson & Li, Q., (2021); Schwanholz, J., Graham, T., & Stoll, P. T. (2018); Wardle, C., & Derakhshan, H. (2017); Okolie, A. M., Enyiazu, C., & Nnamani, K. E. (2021); Pierri F, Artoni A, Ceri S (2020); Recuero, R., Soares, F. B., & Gruzd, A. (2020); Faris, R., Roberts, H., Etling, B., Bourassa, N., Zuckerman, E., & Benkler, Y., (2017); Baptista, J. P., & Gradim, A. (2020); Zimmermann, F., & Kohring, M. (2020).; Parahita, G.D. (2019) and others.

The study further used key media and communication theories to guide the work with the usage of contemporary phenomena in the field of journalism and political communication. Predominantly key literature from global to the countries of study were used through the following: Hansen, I., & Lim, D. J. (2019); Bratton, M., Dulani, B., & Masunungure, E. (2016); Harvey, C. J., & Mukherjee, P. (2020); Hernández-Huerta, V. A. (2017); Aral, S., & Eckles, D. (2019); Bradshaw, S., & Howard, P. N. (2018); Bradshaw, S., & Howard, P. (2017); Kerry, H. P. (2021); Asunka, J., Brierley, S., Golden, M., Kramon, E., & Ofosu, G. (2019); Baptista, J. P., & Gradim, A. (2020); Rúas Araujo, J., Wihbey, J. P., & Barredo-Ibáñez, D. (2022); Leeder, C. (2019); Hernández-Huerta, V. A. (2017); Ferrara, E., Chang, H., Chen, E., Muric, G., & Patel, J. (2020); Munck, G. L. (2016); Hopmann, D. N., Elmelund-

Præstekær, C., Albæk, E., Vliegthart, R., & Vreese, C. H. D. (2012); Bastos, M., & Farkas, J. (2019); Woolley, S. C., & Howard, P. N. (Eds.). (2018); Ehrett, C., Linvill, D. L., Smith, H., Warren, P. L., Bellamy, L., Moawad, M., Moran, O., & Moody, M. (2021); Babac, M. B., & Podobnik, V. (2018); McCombs, M. E., Shaw, D. L., & Weaver, D. H. (2014); Vargo, C. J., Guo, L., & Amazeen, M. A. (2018); Guo, L., & Vargo, C. (2020); Okolie, A. M., Enyiazu, C., & Nnamani, K. E. (2021) among others.

In Russia, the problems of the development of democracy in Nigeria and the peculiarities of political discourse are studied by Dobrosklonskaya, T.G., Zheltukhina, M.R, and Wolde Miguel Kassae Nygusie(2016). Also, Dobrosklonskaya, T.G. (2015), traces the relationship between the formation of media images and the deployment of information, revealing the sequence of several stages: “selection of facts, their coverage (or interpretation), the creation of stable images that may contain an evaluative component, the formation of stereotypes due to the saturation of information space with images, the influence of stereotypes on the cultural and ideological context of the country” . She considers the media text as “a combination of sign units of the verbal and media levels, updated in a certain media format and united by common sense” . Zheltukhina M.R. (2003), emphasises that “the language of the media is a means of establishing and maintaining power relations in society”, that The influence of linguistic variation and the structures of speech communication on the political consciousness of native speakers is carried out by mass media discourse. Wolde Miguel Cassae Nygusie(2020) argues that “in most African countries, the determination to preserve national unity after independence has served as a motive to justify the one-party rule, excessive centralization of power, repressive authoritarian regimes, and the systematic violation of human rights and fundamental freedoms”.

**The object of the study** is information pollution, its impacts, how its spread and patterns in disrupting and undermining democracy. These objects aided

researchers' understanding and choice of research philosophies and approaches that were used for the generation of relevant data for analysis. The objects also helped in choosing appropriate research methods. For instance, the non-availability of similar studies in the research settings (Ghana and Nigeria) led to the adoption of a sequential exploratory research design, which tends to produce robust data to enable significant contributions to existing knowledge, especially filling the void in information pollution impact on presidential elections in Africa.

**The subject of the study** is the impacts of information pollution on African democracy through presidential elections (the selected the year 2016 and 2020 for Ghana/ 2015 and 2019 for Nigeria) and devise possible measures or models that will help actors of democracy navigate the best way(s) to mitigate if not control or eradicate the impact of information pollution within the socio-cultural context of the region.

**The purpose of the study** is to quantify misinformation and disinformation in Africa and to assess its impact on democracy sustainability towards developing possible solutions to emerging patterns of spreading and consequences on concerned stakeholders. Therefore, several stakeholders will benefit from the findings of the study. Members of political institutions such as politicians, candidates, information and media managers will gain insights that will be useful in planning and controlling polluted messages or information spread by their opponents. Candidates will also understand how actors in the information pollution ecosystem perform activities related to information pollution within the context of the presidential election. Voters, electoral bodies and members of the civil society organisations, who are likely to be the main victims of information pollution during elections, will gain insights for better appreciation of the tactics and strategies being used by creators and recreators of polluted information. To achieve this, the following objectives were set in addition to the research questions and hypotheses;

- Assessing the types and quantity of information pollution that occurred during presidential elections in Ghana and Nigeria;
- Determining people and organisations that were targeted the most by the conveyors of forms of information pollution that occurred during the elections in both countries;
- Determining consequences of the spread of forms of information disorder in both countries before and during the elections;
- Assessing the effectiveness of measures employed by stakeholders to contain and manage the spread of forms of information pollution that occurred before and during the elections;
- Determining the influence of the spread of forms of information pollution that occurred before and during the elections on electorates' voting decisions as well as the outcome of the elections.

**Scientific novelty.** The primary novelty of this study is the adoption of a sequential exploratory research design with the specific reference to multi-philosophies, approaches and methods. This led to the ability of the study to come up with a framework and models capable of identifying information pollution creation and spread patterns during presidential election cycles in Ghana and Nigeria, and by extension in Sub-Saharan Africa.

**The theoretical significance of the work** leveraged on propositions and assumptions of agenda-setting, framing and propaganda theories, the study assessed the types and quantity of information pollution that occurred during presidential elections in Ghana and Nigeria, determined people and organisations that were targeted the most by the conveyors of forms of information pollution and consequences of the spread of the forms. The study also assessed the effectiveness of measures employed by stakeholders to contain and manage the spread of forms of information pollution. The study equally examined the extent to which the polluted messages or information impacted the results of the candidates.

**The practical significance of this work.** This study makes significant contributions to existing research on political communication through misinformation and disinformation in African democracy. The study proposes a novel model for identifying and understanding patterns of polluted messages or information during elections in Africa. This model specifically pinpoints the psychology of information pollution and elections through the frequency of how it works, patterns of its spread, and the key actors that engage in it. To the best knowledge of the researcher, this study is the first in the global south to show differences in the information pollution ecosystem about presidential elections in Africa. If there are similar patterns from the global north, then it will confirm how it threads in the whole world. The overall model, which is titled Electoral Cycle Information Pollution Ecosystem (E-CIPE) Model suggests how to understand election and information pollution in West Africa. The model mainly focuses on understanding the chain of information pollution within the context of the election.

**Methodology and research methods.** A sequential exploratory research design was adopted in this study. In general, in-depth interviews between August and November 2021 were done before gathering the data needed for a quantitative approach that included survey, content, and document analyses methods. Therefore, the study's objectives were carried out using a mixed-method approach. The design and methods were appropriate because there was a need to investigate the knowledge gap described which helped in exploring various aspects of the gap in knowledge with the main stakeholders before validating and cross-validating the outcomes with those expressed by the electorate. In-depth interview outcomes were used for the designing of the content analysis and survey research methods. Responses of the main stakeholders were specifically used for the formulation of content categories, which aided the collection of the required data for the content analysis method. The outcomes of the two research methods were further used for designing the survey research method. Document analysis was only designed based on the responses of the

main stakeholders. Their perspectives aided the researcher in locating suitable documents for analysis. It is worth noting that all of the research methods were applied comparatively because the study's goal was to compare the examined phenomenon between two countries. This is in keeping with the notion of some researchers that comparative case analysis aids in the identification of variation and similarity in cases and contributes greatly to the formation and improvement of conceptual equipment. The researcher was able to explore the differences and similarities in information pollution during the electoral process cycle, as well as its impacts on election outcomes in the two countries, as a result of the comparison analysis.

#### **Provisions for the Defense:**

- Information as a key pillar of democracy is facing great threats through the usage of information pollution tactics by the democratic actors to win the election
- Misinformation and disinformation as types of information disorder have had huge impacts on the recent presidential elections in Ghana and Nigeria.
- Digital platforms that were once perceived as a tool for adding values to democracy have become an avenue for undermining the same democracy.
- Understanding the frequency and partners of information pollution during elections stands as one of the keys to curbing the menace.
- The ability of Ghana and Nigeria to devise possible measures or frameworks to mitigate if not control or curb the impacts of information pollution will lead a way for other countries in Africa to combat the menace within the socio-cultural context of the region.

**Research hypothesis.** The following were tested as the hypothesis with assumptions that: one, identified conveyors and victims of polluted messages or information in the newspapers will significantly associate with those identified by the respondents; two, there is a significant relationship between the extent of reporting



and receiving polluted messages from the newspapers and its influence on the decision-making of voters during the presidential election; three, there is a significant relationship between the perceived influence of polluted messages or received from the newspapers on voting decision and the choice of the right candidates; and that, there is a significant correlation between reporting and receiving polluted messages, and results of the candidates during the presidential elections in both countries

**The dissertation author's independent contribution** to quantify misinformation and disinformation in Africa and to assess its impacts on democracy sustainability through presidential elections:

- The information pollution phenomenon and its other cousins as tools for undermining democracy in the contemporary period are thoroughly discussed.
- The types of dominant information pollution spread by the political and non-political actors during the selected elections are revealed.
- The types revealed the patterns and frequency in which information pollution spreads during the presidential elections.
- The author, through the result of the study, argued that some existing laws and regulations align with the features and definition of information pollution including its forms and that the laws and regulations are capable of controlling the spread of polluted messages or information effectively without introducing new ones.
- Reputational damage was revealed through the study as the significant consequence of spreading polluted messages or information during the elections not only for the political actors but other democratic actors.
- This study makes significant contributions to existing research on political communication through misinformation and disinformation with the proposal of a novel model and framework for identifying and understanding patterns of polluted messages or information during elections in Africa.

**The degree of reliability and approbation of the results.** Content and construct validity were used for measuring the extent to which the key variables adopted for collecting the needed data using all the research methods would lead to appropriate results. The researcher and supervisor(s) logically verified the information pollution concepts that were utilized to generate constructs and agreed that the constructs represented overall measurements of the study based on the previously stated objectives (Zikmund & Babin, 2010; Riffe, Lacy, Watson & Fico, 2019). Aside from these ways of assuring the suitability of research tools, the Alpha Cronbach's reliability technique was utilised to test the questionnaire's dependability. Citizens of Liberia, The Gambia, Mali, Niger Republic, Burkina Faso, Senegal, Benin Republic Sierra Leone and Ivory Coast living in the West African region were given copies of the questionnaire through the Google Form platform. Analysis of 28 questionnaire items established .531 Cronbach's Alpha reliability score. This was within the moderate reliability threshold. The reliability of the content categories was carried out using stability and reproducibility approaches suggested by Riffe, Lacy, Watson & Fico, (2019). The stability approach assisted the researcher and another experienced researcher in information pollution in applying the coding protocol explained in section 3.7.3 in addition to strict adherence to the definition of each category. The procedure was followed and the definitions were constantly considered over the coding period, which lasted three months.

**List of works published by the author on the topic of the dissertation:**

- Mustapha, M.J., Shilina, M.G., Agyei, S.O., & Ocansey, R.C. (2022). News Media trust and sources of political information in West Africa: Mainstream vs. New Media in Ghana and Nigeria. *RUDN Journal of Studies in Literature and Journalism*, 27(1), 200–208. [https://doi.org/10.22363/2312-9220-2022-27-1-200-208\(VAK\)](https://doi.org/10.22363/2312-9220-2022-27-1-200-208(VAK))
- Lasisi, M.I., Olansile, A. U., & Mustapha, M. J. (2021). Analysis of 3Vs of Big Data from Fake News and Nigerians' Consciousness towards National

Unity in Times of Uncertainty. In *Mediating Digital Society and individuals: Journalism and communication in the times of uncertainty* (pp. 64-64).

- Mustapha M., Agyei S. — The era of information pollution: a new definition of news production in Nigeria // *Litera*. – 2021. – № 11. – C. 39 - 44. DOI: 10.25136/2409-8698.2021.11.36726 (VAK)
- Mustapha M., Agyei S. — Assessment of the impact of new media and political news channels in West Africa: on the example of Ghana and Nigeria // *Litera*. – 2021. – № 11. – C. 124 - 129. DOI: 10.25136/2409-8698.2021.11.36702 (VAK)

**Volume and the structure of the thesis.** The study is structured into four chapters. It begins with the examination of existing situations of democracy, governance and information disorder or pollution across the world with a specific reference to Africa and studied countries which further look into the gap in knowledge. Relevant existing concepts, empirical evidence and propositions of the theories are reviewed in chapter one through the agenda-setting theory as a guide of the study. Chapter two presents the procedures for the collection of the needed data are presented and explained. Outcomes of the various analyses carried out on the collected data using qualitative and quantitative data analysis techniques are presented and integrated with existing literature, empirical evidence and propositions of the theories that underpinned the study in chapter three. Chapter four encompasses a summary of the entire study with a focus on managerial and policy recommendations. The dissertation consists of an introduction, four chapters, a list of references, appendices, figures, tables and models.

# **CHAPTER ONE.**

## **INFORMATION POLLUTION AS A TOOL FOR UNDERMINING DEMOCRACY**

### **1.0 Overview**

This chapter focuses on the review of existing concepts, empirical studies and theories that underpin the study. The chapter specifically centres on the examination of democracy and election as concepts in relation with some existing empirical studies that have established outcomes of the interactions or relationships of actors in the two concepts. The chapter also examines agenda-setting, framing and propaganda in relation to election manipulation within the context of information pollution. In this regard, efforts are basically expended on how political and non-political actors have been using information pollution as a tool for manipulating citizens' views about members of political and electoral institutions during electoral process cycle in the developed and developing democracies. Overall, the chapter is structured into conceptual, theoretical and empirical sections.

### **1.1 Conceptual Framework**

#### *1.1.1 Understanding Democracy*

A series of previous research has looked into the definition of democracy in different forms, its benefits to society and a series of threats that are facing its sustainability in different regions of the world (Storm, 2008; Morlino, 2004; Schwanholz, J., Graham, T., & Stoll, P. T., 2018; Schia, N. N., & Gjesvik, L., 2020). However, there is no consensus on the definition or what the concept of democracy is as it may have different meanings and interpretations in different regions and countries in the world (Coppedge, et al., 201; Davies, 1999; Dalton, Sin & Jou, 2007;

Seo & Kinsey, 2012; Munck, 2016;) even though there are key characteristics expected to be in it. More so, after the emergence of advanced technologies and digital tools, definitions have been reviewed and the emerging opportunities and challenges are being assessed (Schwanholz, Graham & Stoll, 2018) which may also add or bring another concept. On the debate about the definition of democracy, Coppedge, M., et al noted that “the debate has both descriptive and normative overtones; it is about what occurring polities are (or reasonably could be) and about what they should be” (Coppedge, M., et al 2011, p. 248 ).

In general, the definition of democracy is commonly understood as ‘rule by the people’ as far back as the classical age as the term posit sovereignty which a polity should enjoy to fully realised democracy (Coppedge, et al,1968). However, Mulgan (1968) observed that, though key issues of politics in democratic Athens’ rule were decided in the assembly, all the decisions were not taken by the people. For this, Mulgan believed the rule by the people’s definition of democracy was no longer accurate. This brings us to the contemporary definitions of democracy. Storm (2008), for instance, notes that democracy, as a term in a series of circumstances, has represented situations where there are “competitive, free and fair elections”, respect and protection for civil liberty, and situations where the elected officers have effective power to govern. Likewise, Collier and Levitsky (1997) identify the following four relevant key assumptions to defining democracy: reasonably competitive elections (RCE); basic civil liberties (BCL) such as freedom of speech, religion, association; elected governments that have effective power to govern (EP), an additional feature (AF) like political, economic, and social that are associated with industrial democracy. Storm (2008) posits that one of the most easily applicable models to use in measuring definitions of democracy is that of Collier and Levitsky which categorised the definitions of democracy into six and tagged them as ‘conceptual benchmarks’: non-democratic, electoral (ED), procedural minimum (PM), expanded procedural minimum (EPM), prototypical conceptions of established industrial

democracy (PCEID), and maximalist definitions. Likewise, Fukuyama and McFaul (2008) submit that democracy requires popular consensus and works only if the vast majority of a society's citizens believe that it is legitimate.

Looking at the above definitions, it is clear that democracy is understood on three key levels; a system(institutions), process(procedures) and outcomes(result). The institution is to have a government system in place that governs for effective power; the procedure is the process by which citizens are allowed to participate in free and fair competition such as in an election; and the outcomes could be the ability to satisfy the citizens and sustain the two in enjoying the full freedom and liberty (Anderson & Pildes, 2000; Dahl, 1971; Dalton, Sin & Jou, 2007; Morlino, 2004; Trantidis, 2017).

Furthermore, while there are differing opinions on what the definition of democracy should be, many scholars have also looked into what makes democracy good or bad or what key features it should encompass to make it a quality one. According to Morlino, medial democracy should "A good democracy can be said to present a stable institutional structure that realizes the liberty and equality of citizens through the legitimate and correct functioning of its institutions and mechanisms"(Morlino., 2004, p. 6). Morlino further noted that the quality of democracy can be measured by the quality of the satisfaction of the citizens in terms of outcome(results), the quality of liberty and equality they enjoy(satisfaction), and the opportunity for them to monitor and evaluate the exercise of the government in achieving the first two according to the rule of law(participation). Also, Anderson's (2006) submission on Dewey's model on measurement of a good democracy is closer to Morlino, which questions whether (a) they exhibit the epistemic functions of the constitutive institutions of democracy? (b) they reveal the epistemic merits and demerits of these institutions? and (c) they provide guidelines for improving their epistemic powers? Anderson submits that these models find themselves within the main constitutive feature of democracy. As democracy has passed through different experiences in the past decades with different evolutions of world development, each

of the stages is one way or the other and has effects on changes and updates in the definition of democracy. In the face of these evolutions, the digital era is not left out because of the disruption of Information Communication Technologies (ICT) to the Internet and social media. While many have praised the emergence of technologies and digitalisation and forecast them as key tools to advance the growth of democracy (Barber, B. R., 2000; Garcia Alonso, R., & Castro, L. D., 2016; Weare, C., 2002), many have equally criticized and observed many challenges that come with it (Morozov, 2011; Schwanholz, J., Graham, T., & Stoll, P. T., 2018; Wardle & Derakhshan, 2017).

As many opinions and metrics have been set for defining democracy and measuring its quality, there are numerous previous studies on the advantages of democracy (Bennett, S. D., & Stam III, A. C., 1998; Blankart, C. B., & Mueller, D. C., 2004; Karstedt, S., 2006; Storm, L., 2008). At least, if there are no advantages why would there be campaigning for its adoption? An example of this is the emergence of ICT in the late 1990 when they are being used to strengthen the work of the government by making some of the features of the democracy more effective for the stakeholders. Longford (2000) cites an example of the concept of *e-government* that was introduced by the government of Canada like Government On-Line (GOL) which was to provide access to information, ‘improve government services, streamline internal administrative processes, and enhance opportunities for citizens to engage with government’.

### ***1.1.2 Election and Information Pollution***

Elections play a crucial role in the democratic process and became a universal mode of choosing leaders across the world (Hyde & Marinov, 2014), though it may have its ups and downs through manipulation, interference and other errors (Hernández-Huerta, 2017; Schedler, 2002). Many definitions of scholars on

democracy hold elections in high esteem. When a competitive election is freed from manipulation and interference, there is a belief that the key pillars of democracy will be well established and respected (Ferrara, et al., 2020). To categorise an election as competitive, Hyde and Marinov (2012) note that it must fall within any of the following three categories: that it should permit the opposition to contest, multiple candidates, and many legal political parties. One of the key challenges of the democratic process nowadays, particularly the process of election, is manipulation or interference. Thus, this subsection look into the nexus between election manipulation and mis-disinformation, the types and tools of manipulation involved before and after digitalisation and its tools.

In defining manipulation, there are many phrases associated with malicious actions that have been used to describe the distortion and undermining of democracy and the election process and its outcomes for decades such as misrepresentation, vote-buying, political intimidation, election fraud, election malpractice, lie election manipulation, election interference and other malicious tactics which most of them may be associated with election campaigns (Bratton, Dulani & Masunungure, 2016; Rowbottom, 2012). However, in today's world, election manipulation and interference with misinformation and disinformation or fake news as the tools tend to gain more popularity and grow in concern recently, especially after the 2016 US election which leads to more recent studies on the subject (Aral & Eckles, 2019; Hansen & Lim, 2019; Leeder, 2019; Rúas Araujo, J., Wihbey, J. P., & Barredo-Ibáñez, D., 2022; Van Duyn & Collier, 2019).

While the term manipulation may be broad (Bratton, Dulani & Masunungure, 2016) and could be interpreted in different forms, some key parts of it are connected to the misinformation and disinformation and serves as weapon of influence (Baptista & Gradim, 2020). According to Hansen and Lim, (2019, p. 3), "influence operation' is an effort to change the preferences or beliefs of target audiences, and thereby changing their behaviour, to further a particular agenda" which can be achieved



through information circulation, amplification or suppression to manipulate people.

While intense and vicious campaign among politicians may be considered a sign of a healthy democracy, the boost of the competitive election has equally brought diminishing election quality in recent times, especially in authoritarian or hybrid regimes where election has been used as a tool of control in disguise for democratic practice (Bratton, Dulani & Masunungure, 2016; Harvey & Mukherjee, 2020; Rowbottom, 2012; Schedler, 2002). That is to say, election manipulation, regardless of the types of tools, poses a great danger to the growth and development of democracy (Asunka, Brierley, Golden, Kramon & Ofosu, 2019). Existing studies have shown that election manipulation can be understood in different forms, from opinion manipulation to vote buying or exposure of voters to false information during the election process (Bratton, Dulani & Masunungure, 2016; Rowbottom, 2012).

To classify messages as manipulative, Rowbottom notes the following as the key elements to watch: “outcome, the deceptive means, and the intent of the manipulator”(Rowbottom, 2012, p. 512). Rowbottom’s argument focuses more on the outcomes stresses the fact that the influence on a voter to change minds through information received about a candidate and choose to vote for another candidate or a political party other than the one she or he planned to vote for can be regarded as manipulation. However, there is another counterargument that manipulation may not only be interpreted for changing a decision in voting for another person but could also be for changes in view or reasons for the same candidate intended to vote for due to the effect of malicious information about the opposing candidate shared with him(Rowbottom, 2012). That is reassurance in keeping the voters. While information remains a key pillar of democracy and is considered to be an important tool for the citizens to lend their voices, make an informed decision during the election process and on policies to better their lives, how campaign messages are being distorted called for some regulation to protect and preserve the integrity of election and democracy as a whole (Rowbottom, 2012).

### *1.1.3 Typologies and Tools for Election Manipulation*

Many studies have recorded different ways in which election can be manipulated and interfered with the deployment of malicious information by the political actors (local, national, or international) through campaigns have been linked with a series of them as tools of advantages of one candidate or political party on another which in turn undermines the integrity of democracy (Rowbottom, 2012). When talking about types of manipulation, series of existing studies revealed how varied their classifications can be. For example, Hansen and Lim (2019), conceptualized modes by which information can be manipulated and influenced into three classes termed ‘cyber voter interference’ (CVI) which includes: doxing, when private information of a person is stolen and shared with public; sharing of misleading information to intentionally cause harm; and the use of trolling. Likewise, Rowbottom (2012), notes the following as the key three ways in which false statements or information pollution can undermine the integrity of elections. First, is ‘manipulating voters’ through campaign lies which can make voters make decisions based on untrue information. Second, ‘distortion of the electoral process’ through false information can lead to the election of the wrong candidate. Third, ‘the tone of the campaign’ through negative attacks or statements about an opposing candidate, which may lead to low participation or disinterest in elections by the citizens. Other types of election manipulation are cyber troops which are “defined as tools and techniques for social media manipulation” that political actor uses to manipulate public opinion online; computational propaganda or social media manipulation which is “the use of automation, algorithms and big-data analytics to manipulate public life” (Bradshaw & Howard, 2017; Bradshaw & Howard, 2018; Ferrara, Chang, Chen, Muric & Patel, 2020). Harvey and Mukherjee (2020) in a study 108 countries, on tactics and effects of election manipulation, from 1980 to 2004 also categorized election manipulation into three: “administrative fraud, which is committed by election officials and

includes tactics such as vote padding, ballot stuffing, and tampering with ballots; extra-legal voter mobilization, which involves direct contact with voters in the form of vote-buying, patronage, multiple voting and similar tactics; and voter intimidation, involves pressuring voters through party representatives, supervisors or the security services”. Looking at the studies and the typologies conceptualized, one part is connected with information and campaign, and another is physical. Drawing from the above classifications and typologies, it could be concluded that election manipulation are in two directions: direct and indirect. The direct involved physical strategy of manipulating election which involved physical execution in which the subject intended to manipulate may be aware. Indirect is mostly through the information over media tools (traditional and social media,) that mostly the subject is usually not aware of the tactics.

As democracy facing series of challenges in different regions of the world, in particular the countries with emerging democracies, African democratic countries like Ghana and Nigeria are not left out of the accusation of different kinds of election manipulations, such as fraud, rigging, vote-buying among others, through the influence of local, national, and international political actors (Asunka, Brierley, Golden, Kramon & Ofori, 2019; Kerry, 2021; Rasak, 2012). While Ghana happens to be one of the most respected democratic countries in Africa through her decorum in conducting elections, the country is equally associated with records of election malpractices and manipulation (Jockers, Kohnert & Nugent, 2010). Likewise, Golden, M., Kramon and Ofori (2019) assert that manipulation, election fraud, snatches of ballot boxes and other electoral malpractices are key issues and allegations that face Ghana elections since the return of democracy in 1992.

#### ***1.1.4 Challenges for Combating Election Manipulation***

While there has been keen attention to the danger of election manipulation, the

reality of the digital age and advancement of technologies have been identified as some of the impediments that are making it difficult to combat, a typical example is a cybercrime. In a study on how voters or voting can be influenced through cyber interference, Hansen and Lim (2019) argue that even though the importance of the cyber domain and the challenges facing are it is being recognized by the political stakeholders(local and international), the policies devised for a solution have been largely viewed through the lens of crime, activism, hacking among others, instead of looking more on the power of the cyber tool for manipulation in changing the minds of the people which can affect the process of democracy. Likewise, Aral and Eckles (2019) in their study on election manipulation through social media noted that to combat issues of manipulation in cyberspace, it is important to use multidisciplinary methods to combat and manage the issues of election manipulation in protecting democracy in the digital age.

## **1.2. Theoretical and Empirical Framework**

The type of information citizens gets, what they see, how they perceive information and what effect information have on them in the electoral process and democracy at large are key areas of political communication that some key media theories have been used to understand. The usage of the three theories: agenda-setting, propaganda, and framing is of high relevance in reviewing their relationship when it comes to democracy, information, political actors, and how the media influence public opinion and policies with the recent changes in today's political communication research on campaigns and elections (Dreier & Martin, 2010; Ehrett et al., 2021; Seethaler & Melischek, 2014). Also, the emergence of digital technologies has one way or the other affected the process of democracy, particularly the case of digital media that changes the media landscape (Ehrett et al., 2021) and gives almost equal opportunities to traditional media, political actors, and even the

non-professional media practitioners such as citizen journalists and bloggers to actively lend their voices to the democratic process (Fortunato & Martin, 2016; Seethaler & Melischek, 2014; Woolley & Howard, 2018). For example, in a study by Babac and Podobnik (2018) on the use of social media during the 2015 general election campaign in Croatia, it was found that different political parties devise different campaign strategies through the various social media platforms, particularly Facebook as means to influence the electorates.

Studies on agenda settings and elections have a long history in political communication. Historically, the agenda-settings phenomena were first hypothesised about 50 years ago by Maxwell McCombs and Donald Shaw, media scholars at the University of North Carolina-Chapel Hill (Dreier & Martin, 2010; McCombs, Shaw & Weaver, 2014; Scheufele, 2000; Van Aelst, Thesen, Walgrave & Vliegenthart, 2014; Yang, X., Chen, B. C., Maity, M., & Ferrara, E. (2016). The scholar's initial study on agenda settings was on the investigation on what are the topic trends in the news and their influence on audiences' opinions (Scheufele, 2000; Vargo, Guo & Amazeen, 2018), that is the relationship between the media and public agenda. In other words, the theory suggests that media have effects on the people's opinions (Guo & Vargo, 2020) through topics being presented to them as important and may even affect their decision, or to say the theory suggests that media tells the audience what to think about by influencing their views of the world (Dreier & Martin, 2010; Ehrett, et al., 2021). There are first two basic typologies of the theory which are first-level agenda settings which suggest that the media does not just reflect the reality, it shapes it; and the second-level point is that the more media present issue or people, the more audience perceived them to be more important (Ehrett, et al, 2021; Vargo, Guo & Amazeen, 2018).

While Agenda-setting by the media is not new and well researched, the use of it as a weapon by 'a coordinated information operation' is new (Ehrett et al., 2021). Agenda settings focus on the relationship between news media agenda and public

opinion (Fortunato & Martin, 2016; Shehata, 2010). The question of whether politicians use media to amplify their campaign or manipulate the electorates through misinformation or disinformation to gain intended results, and whether the media are also involved in that deliberately or not cannot be left out as there are high concerns on the extent of the impacts (Pierri, Artoni & Ceri, 2020) which many studies are investigating.

Empirically, several studies have investigated this relationship and proved that truly there is a high correlation between the agenda of the media and political parties during the election, which is why political parties attempt to influence the media agenda 'known as agenda-setting or agenda building (Hopmann et al.,2012). Shehata (2010) in a study of agenda-setting in the 2006 Swedish National Election campaign, found that agenda-setting effects were highly present in that year's elections. Likewise, a study by Seethaler & Melischek (2014) on the analysis of media and policy agenda formation processes over five election campaigns from 1970 to 2008 in Australia, found that there is truly an agenda-setting effect and that the optimal time frame of these effects is most likely to be achieved immediately (on the day of transmission in the case of television and the following day for newspapers) in contrast with a previous study that suggested agenda-building is most frequently seen within a week. Similarly, a study on party media agenda-setting by Hopmann et al. (2012) found that more relevant parties have more success in influence through agenda settings and election news coverage. Finally, in understanding the potential of misinformation and disinformation in elections, Ehrett et al., (2021) submit that agenda-setting is one of the key media theories to help. For example, Pierri et al. (2020), in their study of the presence and the influence of disinformation through social networks in Italy during the 2019 European Parliament elections, found that some political actors used disinformation and it had some degree of impact.

Some may argue that agenda settings and framing overlap with one another which may lead to their usage of them interchangeably by some people, especially

with the second level of agenda-setting [Maher, T. M., 2001; Weaver, D. H., 2007;; Yang, X., Chen, B. C., Maity, M., & Ferrara, E., 2016]. However, a series of existing studies have countered this assumption stating that there are clear differences between the agenda-setting and framing, even when considered as extension they may be close to one another or seen as extensions of one to the other one though the earlier research deems fit to be aligned together for the sake of theories integration (Scheufele, 2000). In a simple differentiation, while agenda setting is about what or who is being frequently presented to the public by the media, framing is about how the subject or object is being presented in the manner of the image, and priming asserts that is about special attention given to a particular person or issues that present it as more important to the audience than other issues (Dreier & Martin, 2010; Scheufele, 2000; Takens, et al., 2015). Therefore, this is the reason this study chooses to discuss their relations and significance separately to understand how they are connected to the issues of elections, media, citizens, and democracy.

While studies on framing have been well documented, its root can be found in psychology, sociology, social cognitive sciences, political science and political communication research (Druckman, 2001; Iyengar & Simon, 1993). To the psychologists, framing is defined as “changes in judgment engendered by alterations to the definition of choice problems while the sociological angle tends to focus on the use of storylines, symbols, and stereotypes in media presentations” (Iyengar & Simon, 1993., p. 369). Dreier and Martin (2010) submit that framing is one of the key theories to use in understanding the influence of media as they stressed that frame is the way or in which media present the story. Likewise, Druckman (2001) asserts that studies have revealed that citizens make decisions regarding politics based on how issues and information are framed to them, and elites also capitalise on that to manipulate their opinion (Druckman & Nelson, 2003).

Literature is replete with what propaganda is and any of its subset terms or forms are being deployed by politicians to manipulate people’s opinions, and shape

the election process and outcomes (Woolley & Howard, 2016). The history of propaganda has gone a long way, “its origins can be traced to the Institute for Propaganda Analysis (IPA), an organization that operated between 1937 and 1942 to help the public understand and critically analyze what its members called the distortion of public opinion” (Freelon & Wells, 2020, p. 148). While propaganda is perceived by some people and even reported by some researchers as an evil tool associated with demagogues that are used to make us do things otherwise, we wouldn’t have done without the influence of manipulation which can undermine democracy, other people and researchers argued that it not negative (Freelon & Wells, 2020; Taylor, 2013). Though the notion of propaganda is not new to the news media and political landscape and communication research (Freelon & Wells, 2020) or elections, in particular, its usage has changed dramatically due to the emergence of and advancements in technology, pluralism in media and its proliferation through the internet and social media platforms (Bastos & Farkas, 2019; Bradshaw & Howard, 2018; Freelon & Wells, 2020). For this reason, definitions, terms and modes in which propaganda operates for political gain and beyond have also gained a wide range of shifts and development due to the emergence of digital technologies which also brought about a new phenomenon known as computational propaganda; the use of algorithms, automation, and human curation to purposefully manage and distribute misleading information over social media network (Maweu, 2019; Woolley & Howard, 2018) which are equally being used to shape public opinions and political outcomes (Bradshaw & Howard, 2018). Brown noted that “If we accuse someone of engaging in propaganda, the implied judgment is usually that this person intends to achieve questionable political ends by misleading the masses” (Brown., 2018. p.196).

Among other phenomena that are being used interchangeably for propaganda is disinformation: “false, inaccurate, or misleading information designed, presented and promoted to intentionally cause public harm or for-profit” (de Cock Buning, 2018. p. 10) which can also undermine democratic process; mal-information (information that



is based on reality created and shared to inflict harm on people), and fake news (information of various stripes that is presented as real but is patently false, fabricated, or exaggerated) which is attributed to overt(white) or covert(black) propaganda (Reilly, 2018; Wardle & Derakhshan, 2017).

Empirically, Malloy & Pearson-Merkowitz (2016), in their study on negative and positive advertising on candidate success and voter turnout, found that running positive ads for campaigns tends to increase a candidate's chances of winning than running negative ads. The scholars added that the effects of positions can help in areas where they may be losing or plan not to run ads. As the emergence of technology influences different information tools, the same way it is contributing to the propaganda phenomenon as terms like manipulated content, algorithm, computational propaganda and bots have been used as a strong tool to influence public opinion and undermine elections (Ross, et al., 2019). Machado, et al (2018) confirmed, in their study on News and political information consumption, that political conversation and highly partisan and computational propaganda were deployed during the 2018 Brazilian presidential election through social media. Likewise, Howard, Woolley and Calo (2018), in their paper on algorithms, bots, and political communication in the US 2016 election, noted that computational propaganda and political bots are now new tools of political communication that are being used to manipulate public opinion, undermine elections and the possibility to interfere in political communication in the stated states. Keller and Klinger (2019), in their study on social bots in German parties and the 2017 election campaigns, also confirmed that the use of social bots grows more during the election campaign from 7.1% before to 9.9% during the election campaigns since bots are sometimes removed from a platform after a campaign". Hansen and Lim (2019) also confirm, in the study on influencing elections via cyber voter interference, noted that are evidence of cyber voter interference accusations in the 2016 US and 2017 France elections by foreign actors. In a study on the Computational Propaganda Project conducted by Bradshaw and

Howard, (2018) in state-sponsored social-media manipulation of 28 countries, it was concluded that governments and political parties around the world invest largely in testing and usage of computation propaganda to shape the outcome of elections. However, Howard et al. (2018) also noted that it is difficult to evaluate the level of bots (one of the tools of computational propagator) or its overall impact on political discourse, though “they are most useful for negative campaigns”. In measuring the process of bots impacts on campaigns and electoral process, Howard et al., (2018) state the following in the case of the United states of America: zombie electioneering and AstroTurf legislative campaigns, to coordinate campaign strategy and messaging in complex ways, and can be used to solicit donations from voters. Likewise, Keller and Klinger, in their study on social bots in election campaigns which analyzed Twitter follower accounts of seven German parties before and during the 2017 electoral campaign, confirms that “the share of social bots among these parties’ Twitter followers increased from 7.1% to 9.9% during the election campaigns”(Keller & Klinger., 2019, p. 1).

Looking at empirical studies from Africa, a study by Okolie, Enyiazu and Nnamani (2021), on campaign propaganda and electoral outcome of the 2015 Nigerian presidential election through analysis of the two major political parties, found that politicians leverage on media influence to promote propaganda campaigns ethnoreligious sentiment, hate speech and malicious information to manipulate election outcomes to unseat the incumbent government. The scholars further recommend an alignment programme by the electoral institution for the electorates to better avoid being manipulated by the politicians. Likewise, Adomi and Otakore (2017) note in their study of newspaper headlines as a tool for political propaganda that with the rise of new media, news remains one of the most trusted sources of information among the Nigerian citizens. However, propaganda and information remain to remain the key campaign strategies of the politician against one another through the newspaper, though the study found that the malicious information does

not have much effect on the readers on their choice of candidate as voters. Though this study is in one newspaper and one state out of 36 states in Nigeria. In another study by Maweu (2019) on Cyber-Propaganda, Disinformation and the 2017 General Elections in Kenya, it was found that polluted information through disinformation and propaganda was highly deployed by the politicians which made the outcome of the election being categorized as 'fake'. Likewise, Ncube (2019) also confirms the influx of cyber propaganda and different forms of manipulation during the 2018 Zimbabwe election, which also noted the inability of the Zimbabwe Electoral Commission (ZEC) and Zimbabwe Broadcasting Corporation (ZBC) to manage the information carefully as a key cause.

### *1.2.1 Summary of Conceptual, Theoretical and Empirical Framework*

Election manipulation does not occur on the basis that political players and stakeholders in electoral and security institutions work together to favour a single candidate or political party, according to an examination of pertinent concepts. Because of political institutions' inability to regulate spaces where false and misleading information are created and shared, information pollution, driven by emerging technologies and various contingencies related to the protection of human rights and equal opportunities for all, is playing a key role in election manipulation around the world. Theoretically, agenda-setting, framing, and propaganda theories have taught us that information pollution-driven election manipulation is impossible to achieve without people and organizations employing a variety of frames and elements capable of influencing voters' perceptions of candidates and political parties, as well as shaping their (voters') voting decisions. The ideas are pertinent to the study because the makers, recreators, and disseminators of false and misleading information frequently have specific goals in mind for disseminating the polluted messages or information. The targets must be framed negatively, or fraudulent assertions must be

used in order to make the audience have unfavourable or conflicted sentiments about making decisions that could harm the targets' chances of being elected or voted for. Figure 1 depicts the link among conceptual, theoretical, and empirical framework. Democracy, information pollution, and election are the primary constructs which align with the theories that drive the study and the expected outcomes. Democracy and election as part of the primary constructs co-vary. This indicates that election cannot occur without presence of democratic governance. In fact, election is one of the features of democracy. Information pollution is placed at the middle of these constructs and has direct relationship with the both because political actors and non-political actors would do everything possible to get to power by distorting information. When this occurs, the actors must have leveraged assumptions and propositions of agenda-setting, framing and propaganda theories in the course of creating their polluted messages or information. This is presented as a mid-point indicator that connects with the outcome variables; election manipulation, perception about targets and distortion in views or thinking about the targets based on the consumed frames and false elements embedded in the polluted messages or information. While the primary constructs are linked directly and indirectly with the theoretical propositions towards the outcome variables, government stakeholders will be having various challenges in controlling the tools being employed by the actors. This is a moderating variable that affects the primary constructs as well as the outcome variables.

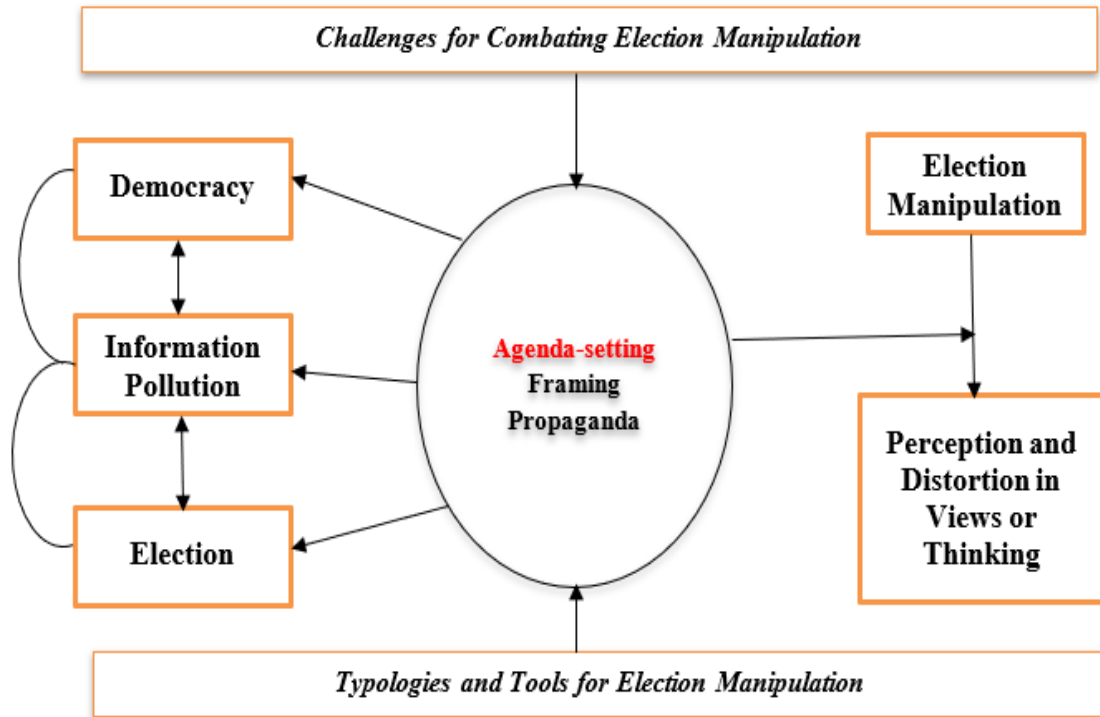


Figure 1: Research Framework

## **CHAPTER TWO.**

### **ANALYSIS AND RESULTS: UNDERSTANDING THE FREQUENCY AND PATTERNS OF INFORMATION POLLUTION IN GHANAIAN AND NIGERIAN PRESIDENTIAL ELECTIONS**

#### **2.0 Overview**

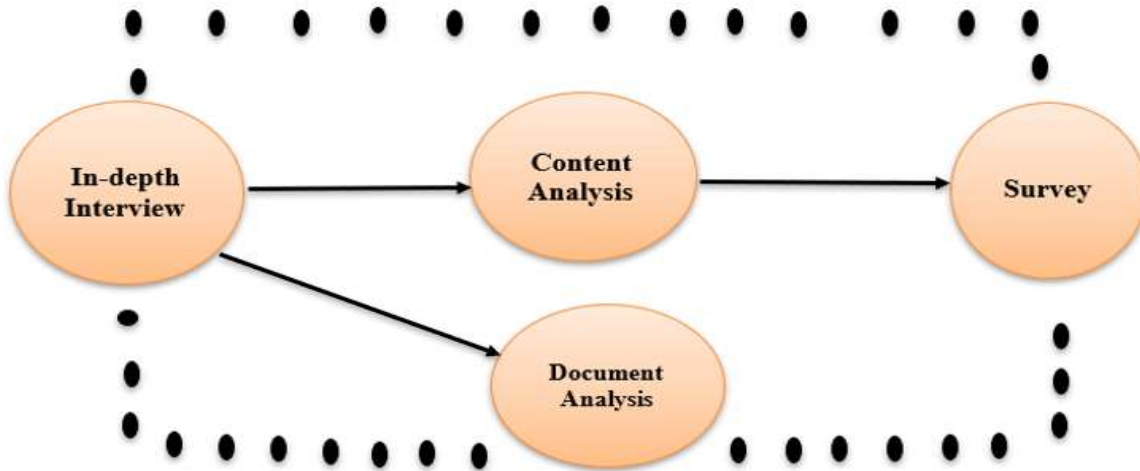
In chapter one, an attempt was made to explain various concepts and constructs of the study. This helps in presenting empirical and scholarly views in critical ways. This chapter advances explanations given in introduction and chapter one. Specifically, the chapter focuses on the presentation of procedures employed for the execution of research objectives stated in chapter one and approaches for collecting the needed data which helped in advancing existing empirical and conceptual knowledge in the field of information pollution within the context of democracy and election with the specific reference to sub-Saharan African countries.

#### **2.1 Research Design**

A sequential exploratory research design was adopted in this study. This allowed the researcher to complete the qualitative portion of the research before going on to the quantitative (Berman, 2017; Creswell & Plano Clark, 2018; Zikmund & Babin, 2010). In general, in-depth interviews were done before gathering the data needed for a quantitative approach that included survey, content, and document analyses methods. Therefore, the study's objectives were carried out using a mixed-methods approach. The design and methods were appropriate because there was a need to investigate the knowledge gap described in introduction, which was expanded in chapter one through examination of various concepts and formulation of constructs that led to measures that were investigated from the perspective of the main

stakeholders (political and electoral institutions members) before reaching sub-stakeholders (electorate).

Specifically, using the design and methods helped in exploring various aspects of the gap in knowledge with the main stakeholders before validating and cross-validating the outcomes with those expressed by the electorate (Berman, 2017; Creswell & Plano Clark, 2018). In-depth interview outcomes were used for the designing of the content analysis and survey research methods. Responses of the main stakeholders were specifically used for the formulation of content categories, which aided the collection of the required data for the content analysis method. The outcomes of the two research methods were further used for designing of survey research method. Document analysis was only designed based on the responses of the main stakeholders. Their perspectives aided the researcher in locating suitable documents for analysis. It is worth noting that all of the research methods were applied comparatively because the study's goal was to compare the examined phenomenon between two countries. This is in keeping with the notion of some researchers that comparative case analysis aids in the identification of variation and similarity in cases and contributes greatly to the formation and improvement of conceptual equipment (see Hallin & Mancini, 2004). The researcher was able to explore the differences and similarities in information pollution during the electoral process cycle, as well as its impact on election outcomes in the two countries, as a result of the comparison analysis.



**Figure 2: Research Design Process**

Source: Researcher's Formulation, 2022

## 2.2. The population of the Study

Entities, materials and humans were the three categories of population of the study. Entities were the political parties, electoral bodies and countries in the West Africa region. Newspapers, news stories and legal documents were material populations while editors of newspapers, representatives of electoral bodies and political parties, and electorate/citizens were the human population. These population categories were considered appropriate because they possessed specific characteristics that aligned with the main objective of the study. Specifically, West African countries constituted the population of the study because the countries are not exempted from experiencing information pollution about democratic governance, most importantly during the electoral process cycle.

Since it is impossible to study democratic structure without analysing political parties' and politicians' behaviour, political parties and politicians were found appropriate as population categories needed to be examined in line with the information pollution. Like members of political institutions, electoral bodies and electorate/citizens were considered as part of the population based on the expectation,



they would have a better understanding of how political and non-political actors used distorted information to manipulate or shape voting and non-voting population decision and perception respectively. Media institution with newspapers, editors and content as units of analysis was appropriate for the population of the study because of the possibility of having a better understanding of and quantifying information pollution behaviour of the political and non-political actors during the studied presidential elections in the West Africa region. Legal documents constituted the population of the study because they were expected to have guiding principles in form of rules and punishments for violators of ideal information creation and dissemination in the region. Suffice to note that the numbers assigned to political parties, newspapers and electorate/citizens population categories in Table 1 were basically for Ghana and Nigeria.

**Table 1.: Population categorisation**

<b>S/N</b>	<b>Population</b>	<b>Category</b>	<b>Number</b>
1	West African Countries	Entity	17
2	Political parties	Entity	102
3	Electoral bodies	Entity	17
4	Newspapers	Material	216
5	Newspapers' Editors	Human	216
6	Electoral Bodies' representatives	Human	17
7	Political parties' representatives	Human	102
8	Electorate/citizens	Human	249,070,000
9	News stories	Material	-
10	Legal documents	Material	-

### **2.3. Sampling Procedures**

Purposive, pooling and total sampling procedures were adopted for the selection of samples from the population categories described above. Some countries were selected from the West African countries, political parties, newspapers, editors of newspapers, representatives of electoral bodies and political parties were chosen using a purposive sampling procedure. This procedure was employed for the selection based on the characteristics and identities of the population categories explained under section 3.2.

The same sampling technique was also used for the selection of news stories from the newspapers and legal documents. In addition to the purposive sampling procedure, the total technique was also adopted for the selection of news stories. This approach was adopted based on the premise that news stories were available and aligned with the specific features of information pollution. The purposive sampling technique was specifically used for the selection of political parties based on their dominance of each country's political party system between 2015 and 2020. Ghana and Nigeria have a lot in common when it comes to the democratic process. From being former colonies of Great Britain, sharing English as an official language, and the two countries are recognised by the party system (Asunka, Brierley, Golden, Kramon & Ofori, 2019). Newspapers were chosen with the aid of Alexa, a portal that ranks news and non-news websites using standardised criteria that range from the number of visitors and content quality of the websites.

Using Alexa.com ranking to search for most read newspapers or websites per country, the top 5 Nigerian traditional newspapers that are equally online were selected while Ghana, due to the low presence of many print media in the ranking, a mixture of top online newspapers with one traditional media were chosen. The analysed legal documents were chosen based on the premise that they had been signed into laws and had been in existence for several years before the elections that were

used as cases. Electorate/citizens who participated in the study were chosen using a pooling sampling procedure.

This method was employed because of the inability of accessing a national database of citizens which should have assisted the researcher in employing a probability sampling technique. The entire population in each country was considered as a pool in which samples were chosen. The summaries of the specific features adopted for the selection of newspapers were presented in Table 2 to Table 3 while the information in Table 4 focuses on the population categories and respective sampling procedure(s) used for the selection of the needed samples from the population.

**Table 2: Selected Ghanaian Newspapers and adopted metrics**

S/N	Site	Daily Time on Site	Daily Preview per Visitor	Percentage of Traffic from Search	Total Site Linking in	Web-link
1	Ghana Web	6:39	8.85	21.30%	25,562	<a href="http://www.ghanaweb.com">www.ghanaweb.com</a>
2	My Joy Online	4:04	1.09	17.30%	3,600	<a href="http://www.myjoyonline.com">www.myjoyonline.com</a>
3	Citi Newsroom	24:07	3.50	15.00%	90	<a href="http://www.citinewsroom.com">www.citinewsroom.com</a>
4	Peace F.M Online	4:06	2.50	13.10%	2,556	<a href="http://www.peacefmonline.com">www.peacefmonline.com</a>
5	Daily Graphics	12:49	3.40	32.80%	543	<a href="http://www.graphic.com.gh">www.graphic.com.gh</a>

Source: Alexa, 2022; Researcher's Analysis, 2022

**Table 3: Selected Nigerian Newspapers and adopted metrics**

S/N	Site	Daily Time on Site	Daily Preview per Visitor	Percentage Traffic from Search	Total Site Linking in	Web-Link
1	The Punch	9:00	3.10	17.30%	6,239	<a href="http://www.punchng.com">www.punchng.com</a>
2	Vanguard	4:22	2.12	27.90%	7,921	<a href="http://www.vanguardngr.com">www.vanguardngr.com</a>
3	The Guardian	3:43	2.18	36.30%	535	<a href="http://www.guardian.ng">www.guardian.ng</a>
4	Premium Times	3:20	1.90	35.40%	3,668	<a href="http://www.premiumtimesng.com">www.premiumtimesng.com</a>
5	The Nation	4:34	2.48	16.20%	4,949	<a href="http://www.thenationonline.ng">www.thenationonline.ng</a>

Source: Alexa, 2022; Researcher's Analysis, 2022

**Table 4: Population and sampling procedures for samples selection**

S/N	Population	Sampling Procedure
1	West African Countries	Purposive
2	Political parties	Purposive
3	Newspapers	Purposive
4	Newspapers' Editors	Purposive
5	Electoral Bodies' representatives	Purposive
6	Political parties' representatives	Purposive
7	Electorate/citizens	Pooling
8	News stories	Purposive and total
9	Legal documents	Purposive

Source: Researcher's Compilation, 2022

## 2.4. Sample Size

From the sampling procedures explained earlier, 5 national newspapers were chosen from each country. This led to a total of 10 national newspapers. Two representatives of the electoral body from each country were chosen. This was also applied to the representatives of political parties. One editor from each newspaper was selected. In all, a total of 10 newspapers editors were selected. Two political parties from each country that participated in each election were chosen. In line with the pooling sampling procedure employed for the selection of electorate or citizens, a total of 583 Ghanaians and 572 Nigerians participated in the study. For the newspapers, a total of 912 and 1,078 news stories were used from Ghanaian and Nigerian newspapers respectively.

**Table 5: Population and sample size**

S/N	Population	Sample Size
1	West African Countries	2
2	Political parties	4
3	Newspapers	10
4	Newspapers' Editors	10
5	Electoral Bodies' representatives	2
6	Political parties' representatives	4
7	Electorate/citizens	1,155
8	News stories	1,990
9	Legal documents	3

Source: Researcher's Compilation, 2022

## **2.5. Research Instruments**

The questionnaire, semi-structured interview guide and content categories were the research instruments used for the collection of the required data. These instruments were developed with the consideration of the specifics of each research method adopted for the study. In the subsequent sub-sections, the nature and characteristics of each instrument, including how it was formulated, are explained.

### ***2.5.1. Questionnaire***

This instrument was designed for the elicitation of data from the survey research method. The instrument was formulated with the consideration of collecting data that established an understanding of the electorate or citizens about information pollution during the electoral cycle of the presidential elections in both countries. The instrument was also developed to gather socioeconomic information from the participants. Specifically, the instrument was formulated with the main intention of collecting psychographic and demographic information from the participants. The instrument was divided into five sections.

The first section entailed items that probed participants' views and understanding of information pollution from the newspapers' reportage and members of political institutions' deployment of misinformation and disinformation during the electoral process cycle. The second section of the questionnaire had items that sought the views of the participants regarding the main victims and cost of misinformation and disinformation before and during presidential elections in both countries. The third and fourth parts of the questionnaire encompassed items that sought the views of the participants on measures they believed concerned stakeholders deployed or must have been deployed towards effective containment and management of polluted messages spread before and during the elections. Section five of the questionnaire was devoted to the examination of the views of the participants regarding how the spread of misinformation and disinformation influenced their voting decisions having

exposed them to various polluted messages that shaped their (participants) ways of perceiving the targets of the messages.

These sections emerged from three broad sections created for examining the overall objective of the study, which is the impact of information pollution in society and on democracy with the specific reference to elections. Primarily, the broad sections were used in the final questionnaire distributed to the participants while the sections discussed earlier were used for the presentation of results in line with the objectives of the study. The research instrument was designed with the adoption of a close-ended approach for category option formulation. During the analysis of the collected data, each of the sub-sections was later considered as a measurement scale while analysing formulated research hypotheses, and individual items were used single handedly and in groups for descriptive analysis.

### ***2.5.2. Semi-Structured Interview Guide***

Three semi-structured interview guides were developed for elicitation of responses of the participants in the in-depth interview aspect of the study. The first guide was developed for the collection of the required data from the representatives of the political parties in both countries. This guide had main questions and between 5 and 6 probed questions for each interviewee. The second guide, which was used for gathering editors' responses, had 9 questions with between 4 and 5 probed questions. The third guide which was designed for the collection of the views of representatives of electoral bodies in both countries had 7 questions with between 3 and 4 probed questions. Specifically, the main questions were the questions that aligned with the focus of the study. These questions were first created before asking the interviewees probe or follow up questions based on their responses that ignited new areas that need to be explored.

### *2.5.3. Content Categories*

Content categories were the instrument used for the collection of relevant data in line with content and document analyses research methods. For the content analysis research method, four main content categories were created. These categories further had 18 sub-categories. The main categories are forms of information pollution that occurred before and during the elections, conveyors, victims and costs of the identified forms. The two sub-categories of forms of information pollution which are misinformation and disinformation were used in addition to mal-information as content categories for gathering relevant data from the legal documents selected from both countries. Each of the sub-categories is defined in the table below



**Table 6 Operationalisation of Content Categories**

<i>Forms of Information pollution</i>		
a	<b>Misinformation</b>	False information or message with the intention of not causing harm
b	<b>Disinformation</b>	False information or message to cause harm
<i>Conveyors of Misinformation and Disinformation</i>		
a	<b>Candidate</b>	A news story that focuses on a person who is a member of a political party and has been confirmed as the flagbearer of the party for the presidential election. This person is either involved in the spread of false information or message to cause or not cause and both before and during the election.
b	<b>Political Party</b>	A news story that focuses on an entity that has politicians and members with the intent of ruling any of the countries. For the party to be the ruling party, both politicians and members engaged in the creation and dissemination of false and misleading information.
c	<b>Politician</b>	This is a news story that focuses on a registered member of a political party who has reached significant positions in the party. He or she engaged in the creation and dissemination of polluted messages or information to help his or her party and candidate before and during the election towards becoming the winner.

d	<b>Electoral Body</b>	A news story that reveals an organisation saddled with the responsibility of ensuring peaceful electoral processes for positive outcomes from various electoral cycle stages. In the course of doing this, especially communicating with the concerned stakeholders, it is expected to engage in spreading false and misleading information intentionally and or unintentionally.
e	<b>Member of Political Party</b>	A news story that indicates an individual who intentionally and or unintentionally created and disseminated false and misleading information to help his or her political party and candidate before and during the election.
f	<b>Non-Political Party Organisation</b>	A news story that reveals a socio-cultural organisation that expressed support to a candidate and or political party. And, while being supportive it engaged in the creation and spreading of false and misleading information intentionally and or unintentionally.
g	<b>Civil Society Organisation</b>	A news story that reveals an organisation in the civil society sector that was deliberately involved in the information pollution because of its aim of destabilising a candidate and political party before and during the election.
<b><i>Victims of Misinformation and Disinformation</i></b>		
a	<b>Candidate</b>	A news story that indicates a member of a political party who has been confirmed as a candidate for the presidential election and targeted in the reported false and misleading information or messages.

b	<b>Political Party</b>	A news story that indicates an entity with members and candidates for the election which was targeted by any of the conveyors of the polluted messages.
c	<b>Politician</b>	A news story that indicates a member of a political party, who is not contesting but is a politically-exposed person, as a target in the polluted messages.
d	<b>Electoral Body</b>	This is a news story that focuses on a constitutionally created organisation saddled with the responsibility of conducting the election but targeted by the conveyors of the polluted messages
e	<b>Voter</b>	A news story that indicates a citizen of any of the countries, who is expected to receive the polluted messages and have his or her views modified or shaped due to various examples or representations of the targets provided by the conveyors, as the target of the polluted messages.
<b><i>Costs of Misinformation and Disinformation</i></b>		
a	<b>Demeaning leadership</b>	This is a news story that has false and misleading information with the intent of discrediting the leadership style and pattern of existing or prospective political leaders. This is also used to pinpoint political parties that conveyors want the audience to see incapable of governing any of the countries.

b	<b>Social relation damage</b>	This is a news story that indicates elements that the audience could consider for reducing interpersonal relationships with the targets of the polluted messages and also relatives of the targets.
c	<b>Societal damage</b>	This is a news story that shows that false and misleading information will have a severe impact on society. This category leveraged definitions or meanings of demeaning leadership, social relation and reputational damage categories.
d	<b>Reputational damage</b>	This is a news story aimed at getting the audience to see the targets of polluted messages through a skewed perspective. Essentially, it is a news item that has heightened viewer perceptions of the targets' unfavourable characters.

Source: Researcher's Analysis, 2022

## 2.6. Validity and Reliability of the Research Instruments

Content and construct validity were used for measuring the extent to which the key variables adopted for collecting the needed data using all the research methods would lead to appropriate results. The researcher and supervisor(s) logically verified the information pollution concepts that were utilized to generate constructs and agreed that the constructs represented overall measurements of the study based on the previously stated objectives (Riffe, Lacy, Watson & Fico, 2019; Zikmund & Babin, 2010). Aside from these ways of assuring the suitability of research tools, the Cronbach's Alpha reliability technique was utilised to test the questionnaire's dependability. Citizens of Liberia, The Gambia, Mali, Niger Republic, Burkina Faso, Senegal, Benin Republic Sierra Leone and Ivory Coast living in the West African region were given copies of the questionnaire through the Google Form platform. Analysis of 28 questionnaire items established .531 Cronbach's Alpha reliability score. This was within the moderate reliability threshold.

**Table 7: Reliability Score of Individual Questionnaire's Items**

<b>Item</b>	<b>Reliability Score</b>	<b>Decision</b>
Voted in the previous elections	.563	Moderate
post messages about politics and campaigns on social media during elections	.615	Moderate
see candidates and political parties' campaign posts before and during any of the last two recent elections	.608	Moderate

share or retweet campaign posts of the candidates and political parties through social media accounts	.602	Moderate
Emotion when read False information or message with the intention of not causing harm	.652	Moderate
Emotion when read False information or message with the intention of causing harm	.635	Moderate
<b>Expected Solutions from National Government</b>		
Commission research to map information disorder	.598	Moderate
Regulate advertisement networks	.602	Moderate
Require transparency of ads on social media	.553	Moderate
Support public service media organisations and local news outlets	.616	Moderate
Roll out advanced cybersecurity training	.583	Moderate
Enforce minimum levels of public service news on to the platforms	.680	Moderate
Regulation of social media	.578	Moderate
Encourage policies on Media, Information and Digital Literacy	.559	Moderate
<b>Expected Solutions from Civil Society</b>		
Educate the public about the threat of information disorder	.593	Moderate

Act as honest brokers	.570	Moderate
Partner other stakeholders on information and digital literacy	.575	Moderate
<b>Expected Solutions from Electorate</b>		
Educate the public about the threat of information disorder	.568	Moderate
Act as honest brokers	.528	Moderate
Partner other stakeholders on information and digital literacy	.539	Moderate

Source: Researcher's Analysis, 2022

The reliability of the content categories was carried out using stability and reproducibility approaches suggested by Riffe, Lacy, Watson and Fico, (2019). The stability approach assisted the researcher and another experienced researcher in information pollution in applying the coding protocol explained in section 3.7.3 in addition to strict adherence to the definition of each category. The procedure was followed and the definitions were constantly considered over the coding period, which lasted three months. Through one-on-one discussions and training on how to code news stories, the acquired knowledge was passed on to trained Research Assistants. This guaranteed that the Research Assistants replicated the same precision and consistency as the researcher and engaged the experienced researcher (Riffe, et al., 2019).

## **2.7. Methods of Data Collection**

### ***2.7.1. In-depth Interview Processes***

Semi-structured in-depth interview guide explained earlier was used for the collection of responses from the participants of the in-depth interview research method. The interview was mainly conducted using a Zoom application and a telephone approach. Each of the interviewees was called by the researcher using a Zoom and a mobile phone. The Zoom and phone approach was used because the researcher was unable to travel to the locations of the interviewees in Ghana and Nigeria due to COVID-19 containment and management restrictions of the governments of the two countries. The sessions were recorded using the Sound Recorder of the Android Phone employed by the researcher and the recording function of the Zoom application. During the sessions, questions were read to the interviewees. The responses to the main questions were used for the drafting of followed or probed questions where necessary.

### ***2.7.2. Questionnaire Administration***

Physical and virtual approaches were used for the distribution of questionnaires in both countries. The instrument was launched on Google Form, a platform that allows researchers to have questionnaires for easy distribution among the participants who access the Internet. For three months, the online version of the questionnaire was distributed. In both countries, the approach yielded less than 1,000 responses. The low response, according to the observation carried out by the researcher, is a result of low Internet penetration and the high cost of data subscriptions. This made the researcher employ a physical approach which enabled one-on-one distribution of the instrument among the participants. This approach increased the number of responses significantly.



### ***2.7.3. Content and Document Coding Protocols***

News reports that had the two dominant forms of information pollution (misinformation and disinformation) were coded. In each country, the previous year before the election was considered in addition to the election year. For example, in Ghana, 2015 and 2019 were considered respectively for the 2016 and 2020 elections accordingly. In Nigeria, 2014 and 2018 were prioritised as preceding years for the 2015 and 2019 elections. The researcher and five trained Research Assistants coded the news stories from the selected newspapers using binary options. When a news story aligned with the definition given for each category under the main category it was indicated with Yes and represented with 2 for quantitative analysis. On the other hand, when the news story did not resonate with the given definition No was used to indicate and 1 was adopted as a numerical value. These processes were significantly carried out on the content categories aided by a code sheet (see Appendix III).

## **2.8. Methods of Data Analysis**

Emerging theme building analysis was adopted for analysis of the responses of the interviewees. Before employing the method, the responses of all the interviewees were transcribed from the Sound Recorder. The transcribed texts were read several times by the researcher to eliminate incomplete communicative thoughts such as ‘hmmm’ ‘oh’ among others and informal expressions. The cleaned data were categorised, initialised and finalised for the creation of codes and the development of appropriate themes in line with the study’s objectives. Specifically, the responses of each interviewee were read sentence-by-sentence to point out areas that resonate with the study’s focus and discover descriptive code for the part (sentence). This stage led to the generation of initial codes, which were further transformed into final codes. The transformation was done by re-reading all the initial codes for possible repetition and reinforcement of the study’s objectives. When similar codes were found they were

merged under codes that captured the study's purpose. These codes were transformed into themes that captured the focus of the study.

Quantitative data that was sourced from the survey and content analysis research methods were subjected to descriptive and inferential statistics. Table 8 contains specific descriptive and inferential statistics employed for each research question and hypothesis. Outcomes of the quantitative data analysis were presented in Tables and Figures for a better understanding of emerged insights.

**Table 8: Quantitative Data Analysis Approaches**

<b>S/N</b>	<b>Research Question</b>	<b>Approach</b>
1	To what extent did national newspapers report misinformation and disinformation messages spread by the political parties and politicians during selected presidential elections in Ghana and Nigeria?	Simple frequency count and percentage, textual explication, one-sample t-test, multinomial logistic regression
2	Who were the victims and the cost of the misinformation and disinformation before and during presidential elections in the two countries?	Simple frequency count and percentage, textual explication, multinomial logistic regression, thematic analysis
3	What measures did stakeholders adopt to curb the menace of misinformation and disinformation before and during the elections?	Textual explication, one-sample t-test, thematic analysis
4	How effective were the provisions of existing laws for misinformation and disinformation management before and during the elections?	Textual explication, thematic

5	To what extent did the spread of misinformation and disinformation influence electorates' voting decisions in the two countries?	Simple frequency count and percentage, percentiles, one-sample t-test, chi-square,
	<b>Hypothesis</b>	
1	Identified conveyors and victims of polluted messages or information in the newspapers will significantly associate with those identified by the respondents	Chi-square
2	There is a significant relationship between the extent of reporting and receiving polluted messages from the newspapers and its influence on the decision-making of voters during the presidential election	Two-stage least square regression
3	There is a significant relationship between the perceived influence of polluted messages or received from the newspapers on voting decisions and the choice of the right candidates	Linear regression
4	There is a significant correlation between reporting and receiving polluted messages, and results of the candidates during the presidential elections in both countries	Two-stage least square regression

Source: Researcher's Compilation, 2.

**CHAPTER THREE.**  
**UNDERSTANDING THE FREQUENCY AND PATTERNS OF**  
**INFORMATION POLLUTION IN GHANAIAN AND NIGERIAN**  
**PRESIDENTIAL ELECTIONS**

**3.0. Overview**

Chapter two specifically focused on the procedures employed for data collection and primarily explained how the gathered data will be analysed and presented in this chapter. Therefore, this chapter focuses on the presentation of the outcomes of the analysed data using three dominant sections. Presentation of the demographic details of respondents and descriptions of the news stories that were analysed including legal documents constitute part of the quantitative section of the chapter. In this section, research questions that were presented in the introduction section and expanded through chapter one and chapter three with the key focus on variables and constructs of the study are also explained in this chapter. It should be noted that some figures, which indicate the views of the sampled respondents, are not add up because of non-uniformity in response to questionnaire items that were used for the results' presentation. However, this does not constitute any error, it only stresses the need for accepting respondents' response pattern. Explanations are done with the intent of revealing essence of each research question in the study. In addition to the presentation of relevant outcomes for each research question, results of the formulated research hypotheses are also presented and interpreted as part of the first section. The second section of the chapter entails presentation of the responses of the interviewees using thematic approach. The third section encompasses discussion of findings. This is done with the aim of integrating the outcomes of the two sections with the existing literature and empirical evidence towards creation of a model that establishes the extent to which information pollution impacted presidential elections

in Ghana and Nigeria. Overall, the chapter leads the researcher to the discussion of the results in relation with the existing empirical evidence and propositions of the theories that guided the study including scholarly views on concepts that were reviewed in chapter two.

### **3.1. Demographics of Respondents and Description of Analysed Newspapers' Data**

In this section, social status of the respondents in the two countries are presented. Specific attention is paid to profession and age because of the need to evaluate attitude, knowledge and behaviour of the respondents in line with the possible interest of people and organisations in spreading misinformation, disinformation and mal-information. These variables are also found relevant because the respondents are expected to have adequate knowledge about how political parties, individuals, electoral bodies and civil society organisations engaged in information pollution trade during the two elections. This section also entails presentation of salient features of the news stories that were analysed from the selected national newspapers of the two countries. In this regard, attention is exclusively devoted to how the newspapers reported their stories towards inducing voters' decision during the two presidential elections.

**Table 9: Demographics of the Respondents**

<i>Profession</i>	<b>Ghana</b>	<b>Nigeria</b>
Civil Society	<b>76(13.0%)</b>	<b>240 (42.0%)</b>
Electorate	<b>363(62.3%)</b>	<b>207(36.2%)</b>
Media	<b>143(24.5%)</b>	<b>125(21.9%)</b>
None	1(0.2%)	0(0.0%)
<b>Total</b>	<b>583 (100%)</b>	<b>572(100%)</b>
<i>Age</i>		

19-28 Years	<b>216(37.0%)</b>	<b>207(36.7%)</b>
29-38 Years	<b>181(31.0%)</b>	<b>227(39.7%)</b>
39-48 Years	87(14.9%)	94(16.4%)
49-58 Years	70(12.0%)	42(7.3%)
59 Years Above	29(5.0%)	2(0.3%)
<b>Total</b>	<b>583(100%)</b>	<b>572(100%)</b>

Source: Researcher's Analysis, 2022

Data in Table 9 establish demographic details of the respondents in terms of profession and age. From the two countries, a relatively number of respondents are electorate and voted during presidential elections. It is also evolved that a significant number of them are within the voting age stipulated by the constitutions and electoral regulations or laws. According to the data, over 62% of Ghanaian respondents (n=583) reported that they are electorate, while 36.2% (n=207) of Nigerian respondents (n=572) indicated the same. In both countries, according to the data, less than half of the respondents belong to media sector. In Nigeria, over 21% of the respondents (n=572) reported that they are working within the media sector. More than 3% of this figure (21%) made Ghanaian respondents to be ahead of the Nigerian respondents. Specifically, 24.5% of the respondents (n=583) indicated that they are working in the sector. Looking at the data, it is obvious that members of the civil society in Nigeria (42.0%=240) participated more in the study than their Ghanaian counterparts (13.0%=76). In terms of age, less than 50% of respondents in the two countries were within all age categories considered in the study. Over 39% of 572 Nigerian respondents reported between 29 and 38 years as their age, whereas 31.0% of 583 Ghanaian respondents indicated the same age category. Closely, analysis shows that 37.0% of Ghanaian respondents are between 19 and 28 years, while 36.7% of respondents in Nigeria reported the same age category. With these results, respondents are expected to have adequate knowledge about how information

pollution, which has been conceptualised as misinformation, disinformation and mal-information in this study, impacted voters during selected presidential elections in the two countries. Out of five selected newspapers from each country, three were accessible for data collection. In all 6 newspapers were accessible while 4 newspapers were not. The 4 newspapers were not because the websites of the newspapers had restriction on how the public should access them. Specifically, the websites are protected from public extraction without prior consent. Therefore, in order to protect the companies' rights and not to violate ethical consideration of the study, the researcher used the websites that allow public access to their content. From Ghanaian newspapers (*Ghanaweb*, *Citi News Room* and *Daily Graphics*) a total of 912 stories were extracted using approaches explained in chapter three, while 1,078 stories were collected from the Nigerian newspapers (*The Punch*, *Vanguard* and *The Guardian*). Due to the adopted binary option for coding the categories that were used for collection of the required data from the newspapers, in some cases, the cumulative frequency of total number of stories was beyond the total number of stories from each country (Ghana=912, Nigeria=1,078).

### **3.2. Presentation of Quantitative Results**

As stated previously, this section focuses on the quantitative aspect of this chapter. Rationales behind each of the research questions are first stated and explained before presenting results of the key variables that were used to answer the questions. Besides explaining reasons for the research questions, the researcher also discussed how the variables used for answering the questions are relevant to the overall aim of the study.

### ***3.2.1. The Extent the National Newspapers Amplify Information Pollution Messages Spread By The Political Parties and Politicians during Presidential Elections in Ghana and Nigeria***

**Research Question One:** *To what extent did national newspapers report misinformation and disinformation messages spread by the political parties and politicians during selected presidential elections in Ghana and Nigeria?*

The central focus of this research question is to understand much of information pollution in terms of misinformation and disinformation of the main political parties and politicians in Ghana and Nigeria spread during selected presidential elections. Since these stakeholders usually leverage media establishments for conveying their messages during electoral cycle, the needed data were sourced from dominant newspapers discussed in chapter three. The news stories of the newspapers were considered with reference to representatives of political parties, aspirants and other politicians as news makers or sources. In addition to this, studied respondents were also asked to indicate which of the newspapers spread false information or messages with the intent to cause harm or not. This is also applicable to the spread of genuine information or messages with the intent of causing harm before and during the elections. Dominant outcomes of the analysis are presented below.

**Table 10: Quantity of Misinformation and Disinformation in selected Ghanaian and Nigerian Newspapers**

	<b>Misinformation</b>	
	<b>Ghana</b>	<b>Nigeria</b>
2015	0(0.0%)	14(7.40%)
2016	<b>153 (76.88%)</b>	0(0.0%)
2018	0(0.0%)	<b>59(31.21%)</b>
2019	0(0.0%)	<b>116(61.37%)</b>



2020	46 (23.11%)	0(0.0%)
<b>Total</b>	<b>199(100%)</b>	<b>189(100%)</b>
	<b>Disinformation</b>	
	<b>Ghana</b>	<b>Nigeria</b>
2015	0(0.0%)	11(9.01%)
2016	<b>202(77.39%)</b>	0(0.0%)
2018	0(0.0%)	<b>50(40.98%)</b>
2019	0(0.0%)	<b>61(50.0%)</b>
2020	59(22.60%)	0(0.0%)
<b>Total</b>	<b>261(100%)</b>	<b>122(100%)</b>

Source: Researcher's Analysis, 2022

Data in Table 10 indicate that in Ghana, misinformation was mostly spread by the newspapers in 2016 (153=76.88%) than in 2020 (46=23.11%) while it was predominantly spread in 2018 (59=31.21%) and 2019 (116=61.37%) in the case of Nigeria. The spread of false information or message with the intention of not causing harm in 2018 is an indication that conveyors prepared for involvement in information pollution or polluted messages earlier enough before 2019 Nigerian presidential election. This position also resonates with the spread of information or messages with the intention of causing harming in 2018 (50=40.98%). In 2019 (61=50.0%), according to the data, disinformation was equally disseminated frequently. While data show that both misinformation and disinformation were frequent before election in Nigeria, it was not established in Ghana. Basically, in Ghana, according to available data, the two forms of information pollution could be said to have been disseminated mostly during election times than before the election periods. The nature and characteristics of the false or misleading information disseminated by the stakeholders could be more understood from the below extracts.

### ***Misinformation***

### *Disinformation*

Minority chief whip in the 7th parliament, Mubarak Mohammed Muntaka, has disclosed that evidence put together by the national democratic congress (NDC) to prove a case of vote rigging in the 2020 presidential election at supreme court will hold the panel of judges spellbound. "Some of the things that I have seen, I want to believe that if president Nana Addo himself is in the sitting as a member of the panel of judges (*he will give up the presidency*)". (*Ghanaweb*, 19 December, 2020).

These results are further examined with the data presented in Table 4.3, where sampled electorates were asked to indicate the extent to which they received or read false information or messages from the newspapers before and during the two presidential elections.

**Table 11: Extent of receiving Misinformation, Disinformation and Mal-Information from Ghanaian and Nigerian Newspapers**

<i>Ghana</i>	N	Mean	Std Deviation
Ghana Web	583	<b>2.45</b>	<b>1.029</b>
My Joy Online	583	<b>2.23</b>	<b>.838</b>
Citi Newsroom	583	2.05	.724
Peace FM Online	583	2.01	.772
Daily Graphics	583	<b>2.16</b>	<b>1.067</b>
<i>Nigeria</i>			
The Punch	<b>571</b>	<b>2.43</b>	<b>1.078</b>
Vanguard	<b>570</b>	<b>2.26</b>	<b>.955</b>
The Guardian	572	2.15	.899
Premium Times	555	2.15	.960
The Nation	<b>572</b>	<b>2.28</b>	<b>1.051</b>

Source: Researcher's Analysis, 2022

**Key:** *Very Much=4, Much=3, Not Much=2, Not at all=1*

Table 11 contains data that indicate the extent to which respondents in the two countries believed that political parties and politicians spread polluted messages through the newspapers before and during the elections. According to data, using *very much, much, not much and not at all* criteria, it is glaring that the newspapers did not spread the messages predominantly. Despite this, above 2 mean score indicates that the newspapers could be said to have spread the polluted messages moderately because the respondents mostly chose *not much* response option, which indicates some level of spreading polluted messages. Examination of the data further indicates that little difference exists among the newspapers in the two countries. According to the data, respondents in Ghana believed that *Ghana Web* (M=2.45, SD=1.029), *My Joy Online* (M=2.23, SD=.838) and *Daily Graphics* (M=2.16, SD=1.067) disseminated polluted messages a little bit. In Nigeria, respondents considered *The Punch* (M=2.43, SD=1.078), *The Nation* (M=2.28, SD=1.051) and *Vanguard* (M=2.26, SD=.955) as the newspapers that spread polluted messages moderately. The categories of people or organisations perceived as conveyors of the false and misleading information or messages are explored with the data presented in Table 4.4.

**Table 12: Conveyors of Misinformation, Disinformation and Mal-information according to respondents**

<i>Conveyors of false information or message with the intention of not causing harm</i>	Ghana	Nigeria
Political Party	<b>166(28.5%)</b>	<b>221(38.8%)</b>
Candidate	<b>143(24.5%)</b>	<b>88(15.4%)</b>
Politician	88(15.1%)	66(11.6%)
Member of Political Party	<b>157(26.9%)</b>	<b>139(24.4%)</b>
Civil Society Organisation	26(4.5%)	14(2.5%)
Non-Governmental Organisation	3(0.5%)	42(7.4%)

<b>Total</b>	<b>583(100%)</b>	<b>570 (100%)</b>
<i>Conveyors of false information or message with the intention of causing harm</i>	<b>Ghana</b>	<b>Nigeria</b>
Political Party	<b>146(25.0%)</b>	<b>175(30.8%)</b>
Candidate	<b>155(26.6%)</b>	<b>88(15.5%)</b>
Politician	<b>111(19.0%)</b>	<b>104(18.3%)</b>
Member of Political Party	<b>125(21.4%)</b>	<b>113(19.9%)</b>
Civil Society Organisation	18(3.1%)	8(1.4%)
Non-Governmental Organisation	28(4.8%)	81(14.2%)
<b>Total</b>	<b>583(100%)</b>	<b>569(100%)</b>
<i>Conveyors of genuine information or message with the intention of causing harm</i>	<b>Ghana</b>	<b>Nigeria</b>
Political Party	<b>190(32.6%)</b>	<b>190(33.8%)</b>
Candidate	<b>158(27.1%)</b>	<b>112(19.9%)</b>
Politician	<b>91(15.6%)</b>	<b>80(14.2%)</b>
Member of Political Party	<b>128(22.0%)</b>	<b>79(14.1%)</b>
Civil Society Organisation	12(2.1%)	50(8.9%)
Non-Governmental Organisation	4(0.7%)	51(9.1%)
<b>Total</b>	<b>583(100%)</b>	<b>562(100%)</b>

Source: Researcher's Analysis, 2022

Table 12 has data that established categories of people and organisations that spread the polluted messages mostly according to the respondents. Across the polluted messages, analysis reveals that politicians, political parties, members of

political parties and candidates are most seen as the conveyors in the two countries. Statistically, none of the two countries has half of the respondents who identified these people and organisation. According to the data, 38.8% (n=221) of 570 respondents from Nigeria considered political parties as conveyors of false information or message with the intention of not causing harm, members of political parties keenly followed with over 24% (n=139) of the same respondents (n=570) who reported the members as spreaders of the polluted message [misinformation]. Candidates were in third position of the people who spread the polluted message, according to 15.4% of the Nigerian respondents (n=570). In Ghana, candidates were equally considered for the third position based on 24.5% of the respondents (n=583). Like what was recorded from Nigeria, political parties were also seen by more than 28% of the Ghanaian respondents (n=583) as conveyors of misinformation during the presidential elections. More than 26% (n=157) of the Ghanaian respondents also indicated that members of political parties spread false information or messages without the intention of harming people or causing crises during the elections.

In terms of seeing the identified people and organisation spreading false information or message with the intention of causing harm, political parties, candidates, politicians and members of political parties dominated responses from the two countries. According to the data, political parties, members of political parties, politicians and candidates are readily seen as conveyors of messages that have the tendency of creating conflicts, crises or harming people and organisations in Nigeria. This could be inferred from 30.8% (n=175), 19.9% (n=133), 18.3% (n=104) and 15.5% (n=88) of 569 respondents who chose the people and the entities (political parties). Identification of these people and political parties as conveyors of this category of information pollution is not quite different in Ghana. According to the data, while political parties were the first spreaders in Nigeria, they were considered as second spreaders in Ghana with a slight percentage difference between political parties and candidates. This could be inferred from 26.6% (n=155) of 583 Ghanaian

respondents who chose political parties. With 21.4% (n=125) of the respondents (n=583), members of political parties in Ghana were in third position of the people who spread false information with the intent of causing harm. Based on 19.0% (n=111) of the respondents (n=583), politicians closely followed political parties.

Looking at the data in Table 4.4, it can be concluded that spreading false information or messages with the intention of causing or not causing harm in relation to who conveys the information or messages is not quite different. From the data, members of political institution spread all the categories of polluted information examined in the study more than the people in the civil society institution. This becomes more evident with the examination of the same number of respondents (n=190) [but with a little difference percentage relative to the overall number of respondents for each country] in the two countries who chose political parties as the spreaders of genuine information with the intention of causing harm before and during presidential elections. This position is further strengthened with more than 27% (n=158) and 19% (n=112) of respondents from Ghana (n=583) and Nigeria (n=562) respectively who identified candidates as conveyors of mal-information before and during presidential elections. Relatively, politicians were not seen as transmitters of mal-information predominantly in the two countries. However, members of political parties were considered as third category of people who spread genuine information with the aim of causing harm. Considering the percentage position, this is more evident in Ghana (22.0%) than in Nigeria (14.1%). These results have several implications. One of the implications is that members of the political institution would succeed in manipulating the voters' views about issues and needs around electoral processes or stages. They would also be in a vantage position for shaping voters' views towards voting and hating particular candidates or political parties, who might not ordinarily be their choices.

**Table 13: Conveyors of Misinformation and Disinformation according to the newspapers**

<b>Conveyor</b>	<b>Ghana</b>	<b>Nigeria</b>
Political Party	126(14.41%)	40(10.98%)
Candidate	<b>141(16.13%)</b>	22(6.04%)
Politician	<b>194(22.19%)</b>	56(15.38%)
Member of Political Party	<b>144(16.47%)</b>	<b>86(23.62%)</b>
Non-Political Party Organisation	<b>163(18.64%)</b>	<b>93(25.54%)</b>
Civil Society Organisation	106(12.12%)	<b>67(18.40%)</b>
<b>Total</b>	<b>874(100%)</b>	<b>364(100%)</b>

Source: Researcher's Analysis, 2022

The views of the respondents captured with the data presented in Table 13 seems to be the true reflection of what happened in Ghana than in Nigeria when the categories of people and organisations that spread false and misleading information were assessed from the perspective of the chosen newspapers. According to the data, politicians (22.19%), members of political parties (16.47%) and candidates (16.13%) were found to have spread polluted messages the most, from political institution perspective. These persons were not prominent in Nigeria during the two elections. However, over 23% of 364 stories from the Nigerian newspapers which established members of political parties as conveyors could be inferred as better than in Ghana in terms of the people who initiated and disseminated false information through newspapers. Comparatively, the results suggest that members of political parties and non-political institutions engaged in the creation and dissemination of false or misleading information through newspapers during the presidential elections in both countries. The results could be further understood from the below extracts.

*Non-member of political party as conveyor*

*The founder and leader of Glorious Word Ministry International, Rev Isaac Owusu Bempah* has predicted that the three times flagbearer of the main opposition New Patriotic Party will win the upcoming presidential election. " What I see is what I say 2016 election Nana Akufo Addo will win, write it down today, but some events will occur again that is what might bring about problems. (*Daily Graphics*, March 02, 2015)

### *Candidates as conveyors*

"Political parties have no business complaining about the filing fee presidential and parliamentary aspirants being demanded by the electoral commission of Ghana, because they have brought it upon themselves". *Jacob Osei Yebboah (Joy) an aspiring independent candidate for 2016 election*. (*Ghanaweb*, September 30,2016).

If this has been established, what were the frequency of each conveyor involvement in spreading the polluted messages (misinformation and disinformation)? This question was answered with the data presented in Table 13 to Table 14.

**Table 14: Number of Times Conveyors spread Misinformation and Disinformation through the Ghanaian newspapers**

	Misinformation					
	B	S.E.	Wald	df	Sig.	Exp(B)
Political party	-.197	.245	.644	1	.422	.821
Candidate	-.444	.244	3.305	1	.069	.641
Politician	<b>-1.037</b>	<b>.221</b>	<b>22.084</b>	<b>1</b>	<b>.000</b>	<b>.354</b>
Member of political party	<b>-.912</b>	<b>.223</b>	<b>16.679</b>	<b>1</b>	<b>.000</b>	<b>.402</b>
Non-political party organisation	<b>-1.998</b>	<b>.219</b>	<b>83.618</b>	<b>1</b>	<b>.000</b>	<b>.136</b>
Civil society organisation	-.488	.246	3.925	1	.048	.614
Constant	2.721	.468	33.739	1	.000	15.190
	Disinformation					



	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>Sig.</b>	<b>Exp(B)</b>
Political party	-.584	.222	6.938	1	.008	.557
Candidate	<b>-.680</b>	<b>.222</b>	<b>9.375</b>	<b>1</b>	<b>.002</b>	<b>.507</b>
Politician	<b>-.960</b>	<b>.203</b>	<b>22.461</b>	<b>1</b>	<b>.000</b>	<b>.383</b>
Member of political party	<b>-.528</b>	<b>.215</b>	<b>6.025</b>	<b>1</b>	<b>.014</b>	<b>.590</b>
Non-political party organisation	<b>-2.143</b>	<b>.206</b>	<b>108.193</b>	<b>1</b>	<b>.000</b>	<b>.117</b>
Civil society organisation	-.025	.245	.010	1	.920	.976
Constant	2.994	.444	45.520	1	.000	19.974

Source: Researcher's Analysis, 2022

Data in Table 14 explicate the frequency at which the conveyors identified in the Ghanaian newspapers spread false information or messages with the intention of not causing and causing harms in the society. Based on the data, non-political party organisations conveyed messages with the intention of not causing harm more than 83 times ( $B=-1.998$ ,  $Wald=83.618$ ,  $p<.000$ ). With more than 22 times ( $B=-1.037$ ,  $Wald=22.084$ ,  $p<.000$ ), politicians followed the conveyors. Analysis also indicates that members of political parties also disseminated false messages with the intention of not causing harms ( $B=-.912$ ,  $Wald=16.679$ ,  $p<.000$ ) frequently. Considering Wald scores and level of significance for each conveyor again, non-political party organisations ( $B=-2.143$ ,  $Wald=108.193$ ,  $p<.000$ ), politicians ( $B=-.960$ ,  $Wald=22.461$ ,  $p<.000$ ), candidates ( $B=-.680$ ,  $Wald=9.375$ ,  $p<.002$ ) and members of political parties ( $B=-.528$ ,  $Wald=6.025$ ,  $p<.000$ ) spread false information with the intention of causing harms. In all, the results suggest that the identified conveyors engaged in the spread of disinformation type of information pollution more than misinformation type. This is expected to have severe impacts on the electoral processes, especially shaping the views of the electorate.

**Table 15: Number of Times Conveyors spread Misinformation and Disinformation through the Nigerian newspapers**

	<b>Misinformation</b>					
	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>Sig.</b>	<b>Exp(B)</b>
Political party	<b>-2.674</b>	<b>.405</b>	<b>43.711</b>	<b>1</b>	<b>.000</b>	<b>.069</b>
Candidate	<b>-3.816</b>	<b>.521</b>	<b>53.707</b>	<b>1</b>	<b>.000</b>	<b>.022</b>
Politician	<b>-1.348</b>	<b>.385</b>	<b>12.265</b>	<b>1</b>	<b>.000</b>	<b>.260</b>
Member of political party	<b>-3.050</b>	<b>.287</b>	<b>112.577</b>	<b>1</b>	<b>.000</b>	<b>.047</b>
Non-political party organisation	<b>-2.647</b>	<b>.281</b>	<b>88.633</b>	<b>1</b>	<b>.000</b>	<b>.071</b>
Civil society organisation	<b>-3.115</b>	<b>.304</b>	<b>104.781</b>	<b>1</b>	<b>.000</b>	<b>.044</b>
Constant	13.571	1.055	165.537	1	.000	783197.740
	<b>Disinformation</b>					
	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>Sig.</b>	<b>Exp(B)</b>
Political party	<b>-2.573</b>	<b>.450</b>	<b>32.619</b>	<b>1</b>	<b>.000</b>	<b>.076</b>
Candidate	<b>-2.245</b>	<b>.598</b>	<b>14.086</b>	<b>1</b>	<b>.000</b>	<b>.106</b>
Politician	<b>-1.942</b>	<b>.398</b>	<b>23.808</b>	<b>1</b>	<b>.000</b>	<b>.143</b>
Member of political party	<b>-2.815</b>	<b>.332</b>	<b>71.866</b>	<b>1</b>	<b>.000</b>	<b>.060</b>
Non-political party organisation	<b>-2.882</b>	<b>.324</b>	<b>79.190</b>	<b>1</b>	<b>.000</b>	<b>.056</b>
Civil society organisation	<b>-3.272</b>	<b>.344</b>	<b>90.524</b>	<b>1</b>	<b>.000</b>	<b>.038</b>
Constant	11.863	1.202	97.362	1	.000	141869.097

Source: Researcher's Analysis, 2022

Similar to the data presented in Table 14, data in Table 15 establish the number of times conveyors identified in the Nigerian newspapers engaged in the spread of false information with the intention of not causing and causing harms during the two presidential elections. Examination of the data reveal that all the stakeholders involved in the creation and dissemination of all the information pollution types. However, members of political parties and civil society organisations disseminated false messages with the aim of not causing harms more than other categories of conveyors. This could be inferred from the Wald scores attained for each conveyor. According to the data, members of political parties spread the messages more than 100 times ( $B=-2.815$ ,  $Wald=112.577$ ,  $p<.000$ ) while civil society organisations engaged in it with the same level of frequency ( $B=-3.115$ ,  $Wald=104.781$ ,  $p<.000$ ). Candidates ( $B=-3.816$ ,  $Wald=53.707$ ,  $p<.000$ ) and political parties ( $B=-2.674$ ,  $Wald=43.711$ ,  $p<.000$ ) were also found as key spreaders of the messages. In terms of conveying false information or messages with the intention of causing harms, analysis shows that civil society organisations ( $B=-3.272$ ,  $Wald=90.524$ ,  $p<.000$ ), non-political party organisations ( $B=-2.882$ ,  $Wald=79.190$ ,  $p<.000$ ), members of political parties, ( $B=-2.815$ ,  $Wald=71.866$ ,  $p<.000$ ), political parties ( $B=-2.573$ ,  $Wald=32.619$ ,  $p<.000$ ) and politicians ( $B=-1.942$ ,  $Wald=23.808$ ,  $p<.000$ ) significantly involved. With these results, expectation is that information pollution would have more impact on elections in Nigeria than in Ghana considering the extent to which electorate and other stakeholders must have been exposed to series of false messages or information with the intention of causing and not causing harms. In furthering the results of the data presented in Table 4.6 and Table 4.7, respondents were asked to pinpoint the types of information pollution they read from the social media accounts of candidates and political parties during the two elections. This was aimed at finding a connection between what the newspapers reported predominantly and what the candidates and parties disseminated as well on social media.

**Table 16: Description of Candidates' and Political Parties' Posts on Social Media Before and During Elections**

<i>Before</i>	<b>Ghana</b>		<b>Nigeria</b>	
	<b>2016</b>	<b>2020</b>	<b>2015</b>	<b>2019</b>
False information or message with the intention of not causing harm	<b>370 (63.5%)</b>	<b>297(50.9%)</b>	<b>266(47.2%)</b>	<b>260(45.7%)</b>
False information or message with the intention of causing harm	<b>121(20.8%)</b>	<b>167(28.6%)</b>	<b>190(33.7%)</b>	<b>206(36.2%)</b>
Genuine information or message with the intention of causing harm	92(15.8%)	119(20.4%)	107(19.0%)	103(18.1%)
<b><i>Total</i></b>	<b>583(100%)</b>	<b>583(100%)</b>	<b>563(100%)</b>	<b>569(100%)</b>
<b><i>During</i></b>				
False information or message with the intention of not causing harm	<b>349(59.9%)</b>	<b>382(65.5%)</b>	<b>281(50.1%)</b>	<b>263(46.7%)</b>
False information or message with the intention of causing harm	<b>154(26.4%)</b>	<b>137(23.5%)</b>	<b>176(31.4%)</b>	<b>203(36.1%)</b>
Genuine information or message with the intention of causing harm	80(13.7%)	64(11.0%)	104(18.1%)	97(17.2%)
<b><i>Total</i></b>	<b>583(100%)</b>	<b>583(100%)</b>	<b>561(100%)</b>	<b>563(100%)</b>

Source: Researcher's Analysis, 2022

Based on the assumption, which has been verified with data in Table 13, Table 14 and Table 15 that candidates and political parties would spread false and genuine information towards the realisation of their personal and group's objectives before and during presidential elections in the two countries, data in Table 16 explicate those presented in Table 12. Specifically, Table 16 contains respondents' description of the categories of polluted information disseminated mostly by the candidates and their political parties. From the data, majority of respondents in the two countries believed that candidates and political parties disseminated information or messages that resonate with misinformation and disinformation definitions mostly. In Ghana, over 63% (n=370) and 50% (n=297) of respondents (n=583) indicated that candidates and political parties engaged in misinformation spread before 2016 and 2020 presidential elections respectively. Not really following the same percentage pattern, Nigerian respondents equally believed that candidates and political parties disseminated false information with the intention of not causing harm. From 563 respondents who responded for 2015 presidential election, 47.2% (n=266) of them indicated that candidates and political parties spread misinformation before the election. It was 45.7% representing 260 respondents for 2019 presidential election. Comparatively, misinformation was more spread before in the first election of the two elections studied in the two countries. However, spreading false information or messages with the intention of causing harm was much in Nigeria before the two studied elections than in Ghana. According to the data, 36.2% (n=206) of 569 Nigerian respondents believed that candidates and political parties used their social media accounts, most importantly Facebook for the spreading of misinformation before 2019 presidential election. With 33.7% (n=190 out of 563 respondents), the 2015 presidential election closely followed. This pattern was recorded in Ghana as well. Analysis reveals that 28.6% and 20.8% of Ghanaian respondents (n=583) believed that candidates and

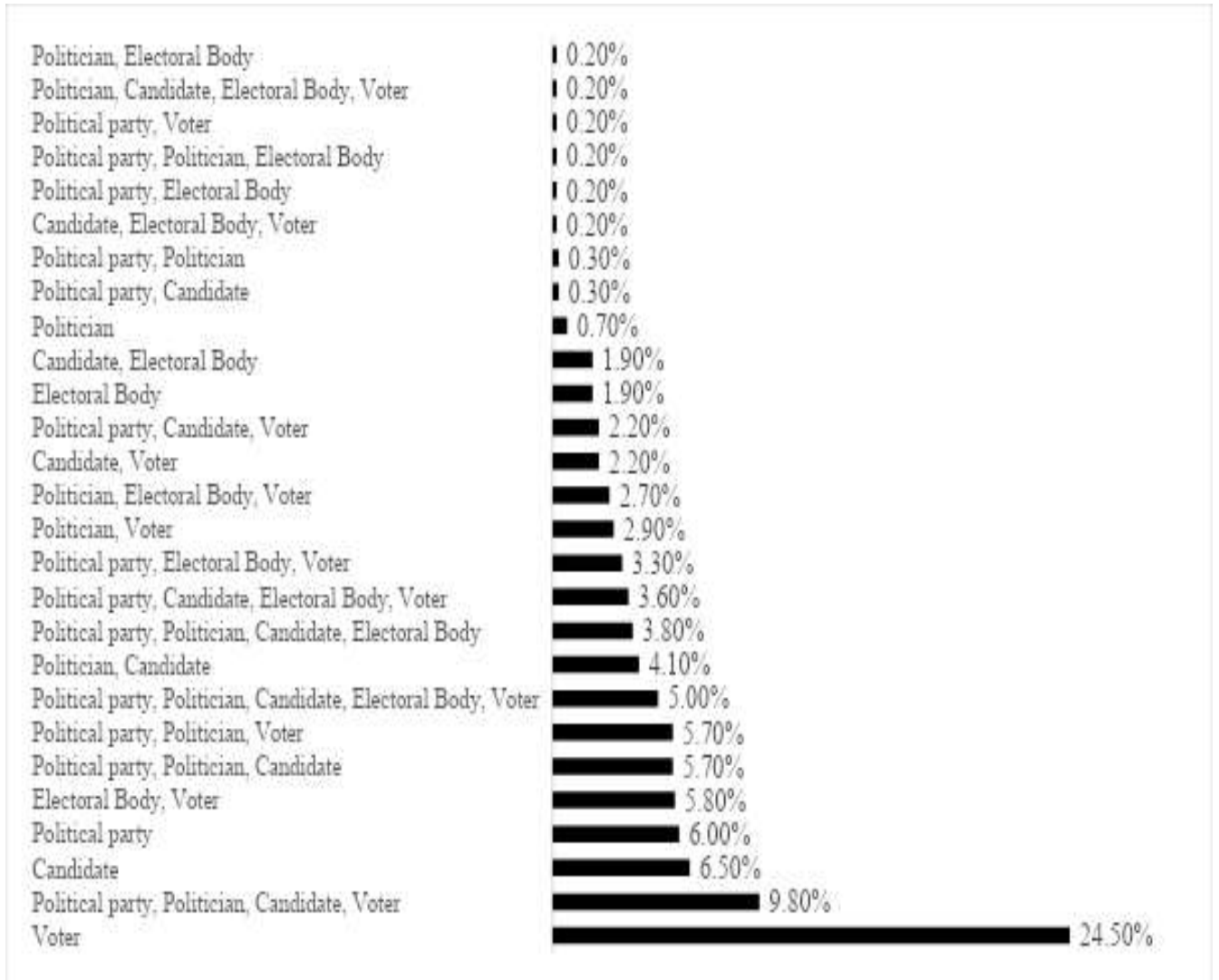
political parties communicated messages or information with the intent of causing harm before 2016 and 2020 presidential elections respectively.

Examination of the data in Table 16 indicate relative difference in respondents' description of candidates and political parties spreading of misinformation and disinformation in the two countries during presidential elections. While level of spreading of these information pollution categories was reduced from before to during elections in Ghana, a slight increase in the respondents' description of candidates and political parties' messages or information as misinformation and disinformation in Nigeria was observed. Over 50% of 561 Nigerian respondents described candidates and political parties' information or messages as misinformation during the 2015 presidential election, more than 3% increase was found. For the 2019 presidential election, 1% increase was observed. In Ghana, spreading misinformation by candidates and political parties was relatively high (65.5%) during 2020 presidential election than before the election (50.9%). For the 2016 presidential election, 59.9% of Ghanaian respondents (n=583) believed that candidates and political parties spread misinformation during the election. This reveals about 4% reduction to what was recorded before the election. Similar to what analysis reveals about spreading disinformation in Nigeria during the studied two presidential elections, Ghanaian respondents equally believed that their candidates and political parties communicated information or messages with the intention of causing harm. According to the data, 26.4% (n=154) and 23.5% (n=137) of respondents (n=583) believed that candidates and political parties' messages or information were aimed at causing harm during the 2016 and the 2020 presidential elections respectively. It is surprising that respondents in the two countries were unable to describe messages or information communicated by candidates and political parties as genuine ones with the intention of causing harm despite identifying them [candidates and political parties] as part of people who spread this category of information pollution before and during the studied presidential elections.

### ***3.2.2. The Victims and the Costs of Information Pollution before and during Presidential Elections in Ghana and Nigeria***

**Research Question Two:** *Who were the victims and the cost of the misinformation and disinformation before and during presidential elections in the two countries?*

This research question was formulated to address two critical issues in the two countries before and during presidential elections. The first issue is that since it is obvious that candidates, political parties, politicians and members of political parties spread polluted messages or information, it is imperative to know people and organisations who bear the brunt of the messages or information when they are read by the public. It is equally important that the study finds out the cost of the polluted messages or information on individuals, organisations and society in general. These were addressed through data collected from survey, content analysis and in-depth interview methods. However, outcomes of the data analysed from content analysis and survey research methods are presented below while those from the in-depth interview are reported in a separate section in this chapter.



**Figure 3: Victims of misinformation and disinformation in Ghana<sup>1</sup>**

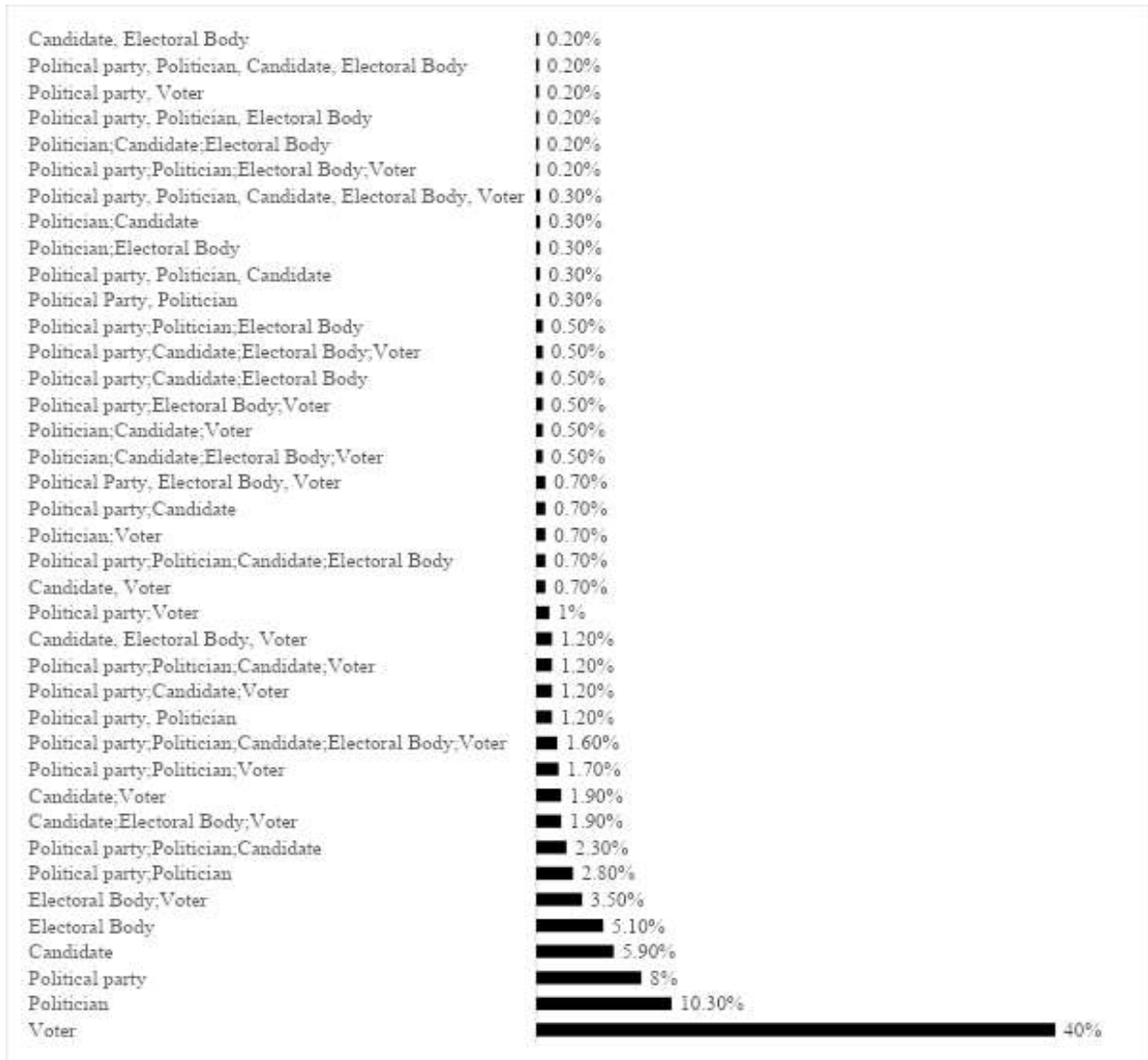
Source: Researcher's Analysis, 2022

Investigation of data in Figure 3 shows that voters are mostly considered as victims of the polluted messages or information in Ghana. This could be gleaned from the constant presence of 'voters' in almost percentage response categories in the Figure. According to the data, 24.50% of 583 respondents believed that the polluted messages or information are having significant impact on voters. Alongside with the political parties, politicians and candidates, 9.80% of 583 respondents equally considered voters as victims of misinformation, disinformation and mal-information in Ghana. Like the consideration of voters as key victims of the polluted messages or

<sup>1</sup> Respondents were asked to choose more than one option.



information, more than 6% and 6% of the respondents (n=583) singlehandedly perceived candidates and political parties as victims of the messages or information. Using positional approach, the data revealed that politicians and candidates were considered in the 9<sup>th</sup> as the victims of misinformation, disinformation and mal-information in the country. This could be inferred from 4.10% of the respondents (n=583) who aligned with the victims.



**Figure 4: Victims of misinformation and disinformation in Nigeria<sup>2</sup>**

Source: Researcher’s Analysis, 2022

<sup>2</sup> Respondents were asked to choose more than one option.

Figure 4 presents data that established categories of people and organisations 572 respondents in Nigeria considered as victims of misinformation and disinformation. Similar to what was recorded in Ghana, majority (40%) of the respondents believed that voters are the victims followed by politicians and political parties which had more than 10% and 8% respectively. Over 5% of 572 respondents also indicated that candidates are bearing the brunt of dissemination of polluted messages or information in Nigeria. While electoral body was not prominently considered as a victim in Ghana, 5.10% of 572 Nigerian respondents perceived the body as a victim. Comparatively, analysis has established that voters, political parties, candidates, politicians and electoral body suffer the most when misinformation and disinformation are spread by the categories of conveyor discussed earlier. If they are the victims, what are the costs? Answers to this question are provided using data in Table 17, Table 18 and Table 19.

**Table 17: Victims of Misinformation and Disinformation according to newspapers**

<b>Victim</b>	<b>Ghana</b>	<b>Nigeria</b>
Political party	<b>294(28.68%)</b>	<b>86(20.82%)</b>
Politician	<b>250(24.39%)</b>	57(13.80%)
Candidate	<b>230(22.43%)</b>	<b>114(27.60%)</b>
Electoral Body	149(14.53%)	<b>95(23.00%)</b>
Voter	102(9.95%)	61(14.76%)
<b>Total</b>	<b>1,025(100%)</b>	<b>413(100%)</b>

Table 17 contains data that established categories of victims found in the newspapers. According to the data, political parties (294=28.68%), politicians (250=24.39%) and candidates (230=22.43%) were the dominant victims during the two presidential elections in Ghana. In Nigeria, candidates (114=27.60%) and

electoral body (95=23.00%) were more victims than other categories of people found in the newspapers. Holistically, it could be inferred that stakeholders in political structure were more victims than those in the conduct and voting electoral processes. These outcomes could be further understood from the extracts below:

***Politicians as Victims***

The former president ***Jerry John Rawlings***, has said; He doubt if president John Mahama is fighting corruption as he claims. "Well he (Mahama) said he is fighting corruption effectively, I don't think so, I think he could have done much better. (*Ghanaweb*, 23 October, 2016.)

***Political Parties as Victims***

Mr. Jacob Osei Yebboah, has urged Ghanaians not to allow the ***NPP and NDC*** to destroy the 2020 election with the debate over a voters register and biometric data base. "It is clear that the NDC and the NPP do not know the difference between voter register and biometric data base". (*Daily Graphics*, May 19,2020)

***Electoral bodies as Victims***

The opposition party NDC is accusing ***the Electoral commission (EC) and the National Identification Authority*** of devising Means to deny about 11 million Ghanaians the chance to vote in the upcoming election. "The decision to by the electoral commission to use only required document to get registered as a voter in the country was a calculated plan by the Akufo Addo administration to rig the upcoming election". (*Daily Graphics*, May 14, 2020)

**Table 18: Number of Times identified categories of victims were really the victims in the Ghanian newspapers**

	Misinformation					
	B	S.E.	Wald	df	Sig.	Exp(B)
Political party	-.745	.183	16.530	1	.000	.475
Politician	-.483	.226	4.586	1	.032	.617

Candidate	.375	.242	2.406	1	.121	1.455
Electoral body	<b>-.947</b>	<b>.203</b>	<b>21.810</b>	<b>1</b>	<b>.000</b>	<b>.388</b>
Voter	<b>-.697</b>	<b>.240</b>	<b>8.453</b>	<b>1</b>	<b>.004</b>	<b>.498</b>
Constant	.630	.343	3.364	1	.067	1.877
	<b>Disinformation</b>					
	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>Sig.</b>	<b>Exp(B)</b>
Political party	<b>-1.308</b>	<b>.177</b>	<b>54.327</b>	<b>1</b>	<b>.000</b>	<b>.270</b>
Politician	<b>-.847</b>	<b>.216</b>	<b>15.368</b>	<b>1</b>	<b>.000</b>	<b>.429</b>
Candidate	<b>-1.059</b>	<b>.220</b>	<b>23.222</b>	<b>1</b>	<b>.000</b>	<b>.347</b>
Electoral body	<b>-.948</b>	<b>.216</b>	<b>19.214</b>	<b>1</b>	<b>.000</b>	<b>.387</b>
Voter	.852	.314	7.376	1	.007	2.344
Constant	1.193	.394	9.188	1	.002	3.298

Source: Researcher's Analysis, 2022

From the data presented in Table 18, it emerged that political parties ( $B=-.745$ ,  $Wald=16.530$ ,  $p<.000$ ), politicians ( $B=-.483$ ,  $Wald=4.586$ ,  $p<.000$ ), electoral body ( $B=-.947$ ,  $Wald=21.810$ ,  $p<.000$ ) and voters ( $B=-.697$ ,  $Wald=8.453$ ,  $p<.004$ ) were largely the victims of false information with the intention of noy causing harm. This is premised on the fact that they were targeted by the conveyors of the messages more than 8 and 10 times. Being the victims was increased for political parties ( $B=-1.308$ ,  $Wald=54.327$ ,  $p<.000$ ), candidates ( $B=-1.059$ ,  $Wald=23.222$ ,  $p<.000$ ), electoral body ( $B=-.948$ ,  $Wald=19.214$ ,  $p<.000$ ) and politicians ( $B=-.847$ ,  $Wald=15.368$ ,  $p<.000$ ) when the false information or messages with the intention of causing harm were considered. According to the data, political parties were more than 50 times the victims of disinformation. This is closely followed by candidates, who were referenced or targeted in the messages more than 20 times. The emergence of electoral body as a victim suggests that Electoral Commission in Ghana was targeted by the conveyors with the intent of making it looks irresponsible to the citizens,

especially the concerned stakeholders from the opposition camp, in terms of conducting credible polls.

**Table 19: Number of Times identified categories of victims were really the victims in the Nigerian newspapers**

	<b>Misinformation</b>					
	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>Sig.</b>	<b>Exp(B)</b>
Political party	<b>-1.805</b>	<b>.298</b>	<b>36.814</b>	<b>1</b>	<b>.000</b>	<b>.164</b>
Politician	<b>-3.136</b>	<b>.339</b>	<b>85.703</b>	<b>1</b>	<b>.000</b>	<b>.043</b>
Candidate	<b>-1.720</b>	<b>.268</b>	<b>41.180</b>	<b>1</b>	<b>.000</b>	<b>.179</b>
Electoral body	<b>-2.549</b>	<b>.277</b>	<b>84.884</b>	<b>1</b>	<b>.000</b>	<b>.078</b>
Voter	<b>-2.994</b>	<b>.333</b>	<b>80.619</b>	<b>1</b>	<b>.000</b>	<b>.050</b>
Constant	9.232	.714	167.056	1	.000	10223.235
	<b>Disinformation</b>					
	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>Sig.</b>	<b>Exp(B)</b>
Political party	<b>-1.745</b>	<b>.298</b>	<b>34.386</b>	<b>1</b>	<b>.000</b>	<b>.175</b>
Politician	<b>-1.390</b>	<b>.378</b>	<b>13.517</b>	<b>1</b>	<b>.000</b>	<b>.249</b>
Candidate	<b>-2.328</b>	<b>.257</b>	<b>82.048</b>	<b>1</b>	<b>.000</b>	<b>.098</b>
Electoral body	<b>-1.638</b>	<b>.289</b>	<b>32.107</b>	<b>1</b>	<b>.000</b>	<b>.194</b>
Voter	<b>-1.360</b>	<b>.361</b>	<b>14.184</b>	<b>1</b>	<b>.000</b>	<b>.257</b>
Constant	5.170	.659	61.510	1	.000	175.940

Source: Researcher's Analysis, 2022

Like what was recorded in Table 18, members of political and electoral institutions were equally dominant victims of information pollution during presidential elections in Nigeria. According to the data, politicians (B=-3.136, Wald=85.703,  $p<.000$ ), electoral body (B=-2.549, Wald=84.884,  $p<.000$ ) and

candidates ( $B=-1.720$ ,  $Wald=41.180$ ,  $p<.000$ ) were frequently targeted whenever false information or messages with the intention of not causing harm were spread by the conveyors identified earlier. This is not quite different for the spread of the information with the aim of causing harm. From the data, it was found that candidates ( $B=-2.328$ ,  $Wald=82.048$ ,  $p<.000$ ), political parties ( $B=-1.745$ ,  $Wald=34.386$ ,  $p<.000$ ) and electoral body ( $B=-1.638$ ,  $Wald=32.107$ ,  $p<.000$ ) were the victims of disinformation during the two presidential elections (2015 and 2019) in Nigeria. These results have many implications. One of the implications is that voting decision thinking process of the voters are likely to be shaped by the messages considering the various falsehood elements which must have been embedded in the messages. Constant referencing or targeting the victims also has propensity of causing voter apathy among the electorates when it is obvious that candidates, politicians, political parties and electoral body seem not to have the intention of playing or behaving during electoral cycle according to the constitutional provisions.

**Table 20: Cost of misinformation and disinformation before and during elections in Ghana and Nigeria<sup>3</sup>**

<i>Ghana</i>	<b>Frequency and Percentage</b>
Reputational, social relation and societal damage, and demeaning leadership	<b>95(16.3%)</b>
Reputational damage and demeaning leadership	<b>90(15.4%)</b>
Reputational damage	<b>88(14.6%)</b>
Social relation damage	<b>71(12.2%)</b>
Reputational damage, demeaning leadership and societal damage	<b>56(9.6%)</b>
Demeaning leadership and societal damage	35(6.0%)

<sup>3</sup> Respondents were asked to choose more than one option.

Demeaning leadership	34(5.8%)
Societal damage	32(5.5%)
Reputational and societal damage	28(4.8%)
Social relation and Societal damage	21(3.6%)
Reputational, social relation and societal damage	12(2.1%)
Reputational and social relation damage	12(2.1%)
Reputational and social relation damage, and demeaning leadership	9(1.5%)
<b>Total</b>	<b>583(100%)</b>
<i>Nigeria</i>	
Reputational and societal damage	<b>77(13.5%)</b>
Societal damage	<b>76(13.3%)</b>
Reputational damage	<b>74(12.9%)</b>
Demeaning leadership	<b>68(12.1%)</b>
Social relation damage	<b>67(11.7%)</b>
Reputational, social relation, societal damage, and demeaning leadership	45(7.9%)
Reputational, social relation and societal damage	23(4.0%)
Reputational damage, demeaning leadership and societal damage	20(3.5%)
Reputational and social relation damage	20(3.5%)
Social relation damage and societal damage	18(3.1%)
Demeaning leadership and societal damage	17(3.0%)
Reputational damage and demeaning leadership	14(2.4%)
Reputational damage, social relation damage, demeaning leadership and societal damage	9(1.6%)
Social relation damage, demeaning leadership and societal damage	8(1.4%)

Social relation damage and demeaning leadership	7(1.2%)
Social relation damage, demeaning leadership and societal damage	7(1.2%)
Reputational damage, demeaning leadership	5(0.9%)
Reputational damage, social relation damage and societal damage	4(0.7%)
Reputational damage; social relation damage and demeaning leadership	4(0.7%)
Reputational damage, social relation damage	3(0.5%)
Demeaning leadership, societal damage	2 (0.3%)
Social relation and societal damage	3(0.5%)
<b>Total</b>	<b>572(100%)</b>

Source: Researcher's Analysis, 2022

In line with the data presented in Table 20, in the two countries respondents largely believed that spreading misinformation and disinformation has a great consequence on the reputation or personality of the people such information or messages targeted. In this regard, the conveyors primarily want the right-thinking members of the public to consider the victims as bad humans who should not be dealing with in any form whatsoever. Analysis also reveals that social relationship with the victims will be constantly diminishing in Ghana, while the entire Nigerian society will bear the brunt of spreading the false information with the intention of causing or not causing harm and genuine information with the intention of causing harm before the victims experience negative social relations. According to the respondents of the two countries, engaging in the spread of MDMal has severe consequent on political leadership of the victims. Statistically, over 16% (n=95), 15% (n=90), 14% (n=88), 12% (n=71) and 9% (n=56) of Ghanaian respondents (n=583) believed that the spread of polluted messages is causing reputational, social relation and societal damage, and demeaning leadership; reputational damage and demeaning



leadership; reputational damage; social relation damage; and reputational and societal damage, and demeaning leadership respectively. In Nigeria, 13.5% (n=77) of the respondents (n=572) believed that MDMal is creating reputational and societal damage. This is closely resonated with the views of 13.3% (n=76) respondents who indicated societal damage as one of the key consequences of spread misinformation, disinformation and mal-information. Analysis further shows that, in Nigeria, over 12.9% (n=74), 12.1% (n=68) and 11.7% (n=67) believed that spreading polluted messages causes reputational damage, demeaning leadership and social relation damage accordingly. Since majority of respondents in both countries align with reputational, societal damages and enhancement of poor social relationship with the victims, it could be concluded that candidates, political parties, members of political parties and politicians would largely been affected during presidential elections. It will specifically shape voters' perception about the victims. And, it would become more severe for the candidates when the voters consider what they read for voting decision only without equipping themselves with alternative credible sources.

**Table 21: Cost of Misinformation and Disinformation according to newspapers**

<b>Cost</b>	<b>Ghana</b>	<b>Nigeria</b>
Reputational damage	<b>351(23.36%)</b>	<b>114(24.30%)</b>
Social relation damage	<b>395(26.29%)</b>	<b>144(30.70%)</b>
Demeaning leadership	333(22.17%)	69(14.71%)
Societal damage	<b>423(28.16%)</b>	<b>142(30.27%)</b>
<b>Total</b>	<b>1,502(100%)</b>	<b>469(100%)</b>

Source: Researcher's Analysis, 2022

Data in Table 21 reinforce those presented in Table 20 on the basis that it comes from the newspapers. Almost all of the cost types listed by the respondents were also found in the newspapers, according to the data. Counts and percentages of occurrence, however, varied depending on the number of stories. According to the

data, social damage was a cost of misinformation and disinformation in over 28% of the 1,502 news stories in Ghana, representing 423 news stories. The same cost was found in the Nigerian newspapers more than 30% from the total of 469 news stories. Meanwhile, social relation damage as a cost is more found in the Nigerian newspapers (144=30.70%) than in the Ghanaian newspapers (395=26.29%). This is relative to the number of news stories extracted from the newspapers of the countries. In line with the data, reputational damage is higher in Nigeria than in Ghana by a small percentage difference. Overall, Nigerian newspapers have more of the four cost categories listed in Table 4.13 than Ghanaian newspapers. This means that during the two presidential elections in Nigeria and Ghana, the cost of information pollution was higher in Nigeria than in Ghana. The exact snippets from the analysed news stories below can help in understanding these results even better.

### ***Reputational damage***

The opposition NDC is accusing that the decision to by the electoral commission to use only required document to get registered as a voter in the country was a calculated plan by the Akufo Addo administration to rig the upcoming election. (*Daily Graphics*, May 14 2020)

### ***Social relation damage and demeaning leadership***

The vice president told the chief and people of Atobiase." Under former president Mahama, we the mismanagement of economy, which plunged the country into many problems including; collapse of NHIS, massive unemployment, failure to pay basic allowances for teachers and nurses, collapsing agriculture among others. (*Daily Graphics*, October 7,2020)

In the subsequent research question, attempt was made to reveal specific legal measures that were in existence before the studied presidential elections. This was done with the intention of revealing the extent to which the conveyors of the polluted messages or information could be said were conscious of the laws and regulations that resonate with spreading false information or messages.

### *3.2.3. Measures adopted by Stakeholders to Curb the Menace of Information Pollution before and during the Elections*

**Research Question Three:** *What measures did stakeholders adopt to curb the menace of misinformation and disinformation before and during the elections?*

Spreading false information is not a new phenomenon throughout the world. Before the emergence of new technologies that have revolutionised the way people and organisations interact, rumour and grapevine have largely been associated with false information or fake news. Then, there are laws and regulations for restricting people from spreading false information about persons and entities, especially defamatory messages. However, the evolution of new technologies and its use for spreading fake news, misinformation and disinformation have attracted government's attention in terms of initiating regulatory policies or programmes. This attempt has received several criticisms in many democracies, most importantly in developing countries such as Ghana and Nigeria studied in this study. Therefore, governments in these countries have been unable to have tangible laws for reduction or elimination of fake news, misinformation and disinformation spread in spite of availability of direct laws in the two countries. Thus, this research question was developed with the intention of reviewing existing related laws and seeking the views of the respondents regarding what concerned stakeholders should do towards reduction or elimination of FMD spread before and during elections. Two legal documents from Ghana and one from Nigeria were used as sources of data for answering the research question. In Ghana, Criminal Code Act, 1960, which has been amended to Ghana Criminal Code Act, 1990, section 208 consolidated up to 1999 and finally amended to the Criminal Code Act, 2003, and Electronic Communication Act, 2008 were specifically found relevant to information pollution and analysed. The Nigerian Criminal Code Act, 1990 was only found and germane to the features and definitions of MDMal in the Nigerian context. The outcomes of the analysed data are presented below.

**Table 21: Elements of Information Pollution in Selected Legal Documents**

<i>Nigeria</i>	Misinformation	Disinformation	Mal-information
<i>Criminal Code Act 1990</i>			
Section 187			✓
Section 375		✓	
Section 376	✓	✓	
Section 377	✓		
Section 379 subsection 4	✓		
Section 379 subsection 5	✓		
Section 379 subsection 6	✓		
Section 379 subsection 7	✓		
Section 379 subsection 8	✓		
Section 380	✓	✓	✓
<i>Ghana</i>			
<i>Criminal Code Act 2003</i>			
Section 185 subsection 1		✓	
Section 185 subsection 3		✓	
Section 208 subsection 1		✓	
Section 208 subsection 2		✓	
Section 313 paragraph (a)	✓		
Section 313 paragraph (b)	✓		
<i>Electronic Communication Act, 2008</i>			
Section 74	✓		
Section 76, subsection 1	✓		
Section 76, subsection 2	✓		

✓ Presence of *MDMal-Information*

Table 22 comprises data that emerged from analysis of the legal documents appraised earlier. The data specifically reveal alignment of relevant sections of the Acts with the features and definitions of misinformation, disinformation and mal-information. In line with the data, Ghana has two sections in its Criminal Code Act,

2003 that are germane to information pollution from Part IV of the Act, which explicitly states offences against public order, health and morality and safety of the state. These sections and Part aimed at restricting people and organisations from communicating or spreading information capable of creating immorality within the contexts of public disorderliness and insecurity of political leaders in relation to the state socioeconomic and political structure. Section 185 of the Act, basically, warns people and entities from spreading false reports with the tendency of injuring the reputation of the state. According to subsection 1 of the Act:

Whoever communicates to any other person, whether by word of mouth or in writing or by any means, any false statement or report which is likely to injure the credit or reputation of Ghana Government and which he knows or has reason to believe is false...

In the subsection 3, it is clearly stated that not knowing that the information is false could not be used as an excuse to evade specific punishment for committing the offence unless evidence of taking reasonable measures is presented. According to the subsection:

It is no defence to a charge under this section that the person charged did not know or did not reason to believe that the statement or report was false unless he proves that, before he communicates statement or report, he took reasonable measures to verify the accuracy of the statement or report.

While subsection 3 of section 185 of the Act seems to suggest that offenders could be exonerated when evidence of reasonable measures taken is presented, section 208, which focuses on publication of false news with intent to cause fear and alarm, subsection 1 denies the offenders such opportunity. According to the subsection:

Any person who publishes or reproduces any statement, rumour or report which is likely to cause and alarm to the public or to disturb the public peace

knowing or having reason to believe that the state rumour or report is false is guilty of a misdemeanour.

However, subsection 2 appears to reinforce protection opportunity subsection 3 of section 185 affords the offenders of false news publication and spread with the saying that offenders also need to prove beyond reasonable doubt that efforts were made to verify the accuracy of the statement, rumour or report before publication or spreading it.

It is no defence to a charge under subsection (1) that the person charged did not know or did no reason to believe that the statement, rumour or report was false unless he proves that, prior to publication he took reasonable measures to verify the accuracy of the statement, rumour or report.

Following the path of the previous sections and subsections, section 313 which prohibits sending of false telegram among others suggests that Ghana could be said to have reasonable legal measures for prevention of polluted messages spread. The section frowns at the spread of telegram messages and others which have the propensity of hurting or annoying any person. Paragraph (a) and (b) of the section state that knowingly sends any false telegram to any person or signs the name of any other person to any petition, prospectus, or testimonial, knowing that no authority for so doing are grave offences. Examination of the Acts, from the Criminal Code Act, 2003 to the Electronic Communication Act, 2008, indicates that Ghana demonstrates its readiness to curb spread of polluted messages during elections and other socioeconomic and political events. Though, the Electronic Communication Act, 2008 is specially enacted for the regulation of electronic media communication or broadcasting, it is highly aligned with emerging information pollution in the country. Section 74 and section 76 of the Act, which criminalises giving false information and communication respectively, suggest that misinformation should not be prevalent in the country.

Overall analysis reveals that Ghana has 5 sections of the two Acts, 6 subsections and 2 paragraphs that are in line with the features and definitions of misinformation and disinformation. Five of these figures (5 sections, 6 subsections and 2 paragraphs] aligned with misinformation and 4 with disinformation). Six sections of the Nigerian Criminal Code Act, 1990 were discovered relevant for analysis. Out of this number, 5 sections specifically focused on what constitutes misinformation, disinformation and mal-information. Section 187 of the Act warns public officials who possess classified documents or information of the government from divulging them to third parties. The section states that:

Any telegraph official who, contrary to his duty, publishes or communicates the contents or substance of a telegram, or any information relating to the dispatch or receipt of any telegram, except to some person to whom he is authorised to deliver the telegram...

From section 375 to 377, Nigerians and other nationals are hinted of not committing defamatory offence, publishing or spreading false information or messages with the intention of ridiculing the victims in person and businesses, which will make the right-thinking ignoring them. Section 375 mainly describes and explicates defamatory matter, while section 376 further reinforces categories of defamatory statements, especially the one that deals with the intent of extorting the victims in all ramifications.

Subject to the provisions of this Chapter, any person who publishes any defamatory matter, is guilty of a misdemeanor and is liable to imprisonment for one year; and any person who publishes any defamatory matter knowing it to be false... (Section 375).

Any person who publishes, or threatens to publish, or offers to abstain from publishing, or offers to prevent the publication of defamatory matter, with intent to extort money or other property, or with intent to induce any person to give, confer,

procure, or attempt to procure, to, upon, or for, any person, any property or benefit of any kind... (Section 376).

However, section 377 does not absolutely at publishing or spreading defamatory statements or messages because it offers some level of caution in public interest. The section states that “The publication of defamatory matter is not an offence if the publication is, at the time it is made, for the public benefit and if the defamatory matter is true.” Section 379 through its subsection 4 to 8 specifies some situation where offenders could be saved from legal punishment by stating cases in which publication is conditionally privileged.

If the defamatory matter consists of fair comment either on any matter the publication of which, or on any report which, is hereinbefore in the preceding or this section referred to; or (Subsection 4).

If the defamatory matter consists of fair comment upon the public conduct of any person in public affairs, or upon the public conduct of any person employed in the public service in the discharge of his public duties, or upon the character of any of such persons so far as it appears by such conduct; (Subsection 5).

If the defamatory matter consists of fair comment on any published book or other literary production, or any composition or work of art, or performance publicly exhibited, or any other communication made to the public on any subject; or of the character of the author of such book, production, composition, work of art, or the person exhibiting such performance, so far as their characters may appear therefrom respectively (Subsection 6).

If the publication is in good faith for the purpose of seeking remedy or redress for any private or public wrong or grievance from a person who has, or is reasonably believed by the person publishing to have, the right to remedy or redress such wrong or grievance (Subsection 7).



If the publication is made in good faith by a person having any lawful authority over another, and is made by him in the course of a censure passed by him on the conduct of that other, in matters to which such lawful authority relates (Subsection 8).

What medium or channel of communication that actually qualifies for transmitting derogatory messages or information is addressed by section 380 of the Act. It specifically stresses publication that “the term “periodical” includes any newspaper, review, magazine, or other writing or print, published periodically.” In subsection 2 of the section, it is emphasized that “The criminal responsibility of the proprietor, editor, or publisher, of any periodical for the publication of any defamatory matter contained therein, may be rebutted by proof that such publication took place without his knowledge and without negligence on his part.” In line with emerged outcomes of the analysis and data presented in Table 4.14, it is glaring that Nigerian Criminal Code Act, 1990 aligns with the features and definitions of misinformation, disinformation and mal-information. Four of 6 sections of the Act resonate with misinformation, while all the 5 subsections align with the same information pollution type. Results of the analysis of the two countries’ available legal documents have indicated that people and organisations, if they were adequately knowledgeable about the provisions of the sections and subsections of the Acts, should not engage in the publication and spread of polluted messages during elections and other socioeconomic and politically related events. It is also expected that the views of the respondents will align with some of the provisions of the sections and subsections of the Acts in the subsequent outcomes of the analysis. Meanwhile, data in Table 4.15 and Table 4.16 centre on categories of measures sampled respondents believe that stakeholders in the non-governmental organisation and civil society sectors including the electorates should have done before and during elections, and also in the future regarding reduction or elimination of creation, recreation, distribution and redistribution of polluted messages.

**Table 23: Respondents' Expected Measures from the Non-Governmental Organisations**

<b>Ghana</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Commission research to map information pollution	<b>583</b>	<b>3.54</b>	<b>.582</b>
Regulate advertisement networks	<b>583</b>	<b>3.33</b>	<b>.647</b>
Require transparency of ads on social media	583	3.25	.566
Support public service media organisations and local news outlets	<b>583</b>	<b>3.60</b>	<b>.617</b>
Roll out advanced cybersecurity training	<b>583</b>	<b>3.60</b>	<b>.583</b>
Enforce minimum levels of public service news on to the platforms	<b>583</b>	<b>3.58</b>	<b>.631</b>
Regulation of social media	583	3.26	.670
Encourage policies on Media, Information and Digital Literacy	<b>583</b>	<b>3.28</b>	<b>.717</b>
<b>Nigeria</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Commission research to map information pollution	<b>401</b>	<b>3.34</b>	<b>.685</b>
Regulate advertisement networks	572	3.11	.792
Require transparency of ads on social media	<b>572</b>	<b>3.26</b>	<b>.530</b>
Support public service media organisations and local news outlets	<b>572</b>	<b>3.26</b>	<b>.799</b>
Roll out advanced cybersecurity training	<b>572</b>	<b>3.26</b>	<b>.840</b>
Enforce minimum levels of public service news on to the platforms	572	3.08	.876
Regulation of social media	572	3.17	.817
Encourage policies on Media, Information and Digital Literacy	<b>572</b>	<b>3.37</b>	<b>.676</b>

Source: Researcher's Analysis, 2022

**Key:** Strongly Agree=4, Agree=3, Strongly Disagree=2, Disagree=1

As shown in Table 23, sampled respondents in both countries believed that commissioning research by members of the non-governmental organisation sector towards mapping information pollution is crucial to reduction or total elimination of polluted messages or information during electoral processes and after. This is clearly established from the views of the majority of the Ghanaian ( $M=3.54$ ,  $SD=.582$ ) and Nigerian ( $M=3.34$ ,  $SD=.685$ ) respondents who agreed with the option of commissioning research to map information pollution. The consideration of conducting research by the respondents could be linked with the existing facts, presented earlier, which show the categories of people who convey polluted messages or information and those who are the victims and bearing the consequences of the disorderliness in communicating false or hate messages or information. For instance, having researches will go in a long way of knowing the conveyers, actors and specific ties within them before and during election. Outcomes of the research are also likely to help concerned stakeholders in deploying some of the provisions of the Acts discussed earlier. Ghanaian respondents ( $M=3.33$ ,  $SD=.647$ ) also expected the NGO sector to have engaged in regulation of advertisement network. This is not highly pronounced by the Nigerian respondents ( $M=3.11$ ,  $SD=.792$ ). Analysis further reveals that Ghanaian respondents are more in tuned with the measure that non-governmental organisation should support public service media organisations and local news outlets ( $M=3.60$ ,  $SD=.617$ ) in their efforts of reporting events or happenings before, during and after elections. This implies that the respondents expect the members of the sector to train journalists and media owners on the better processes and techniques of reporting information in order to avert reporting of polluted messages or information, which might be part of messages or information received from people and organisations that have been identified as spreaders of MDMal. The respondents (Ghanaians) also believed that rolling out advanced cybersecurity training ( $M=3.60$ ,  $SD=.583$ ) and enforcement of minimum levels of public service news on to the platforms ( $M=3.58$ ,  $SD=.631$ ) would go in a long way of curbing the spread of MDMal in the election

times. These measures are also considered significant by the Nigerian respondents. In addition to these measures, the Nigerian ( $M=3.37$ ,  $SD=.676$ ) and the Ghanaian ( $M=3.28$ ,  $SD=.717$ ) expect non-governmental organisations to encourage policies on Media, Information and Digital Literacy. This suggests that the respondents want actors in the sector to initiate and implement policy actions. With the relative low mean score, compare to other measures chosen by the respondents in both countries, of regulation of social media, it is apparent that the studied respondents do not believe in the regulation of social networking sites, which are part of the conduits of distributing polluted messages or information. Their views on what civil society organisations should do or have done before and during election times are explored in Table 4.16.

**Table 24: Respondents' Expected Measures from the Civil Society Organisations**

<b>Ghana</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Educate the public about the threat of information pollution	583	3.27	.453
Act as honest brokers	<b>583</b>	<b>3.53</b>	<b>.561</b>
Partner other stakeholders on information and digital literacy	<b>583</b>	<b>3.35</b>	<b>.562</b>
<b>Nigeria</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Educate the public about the threat of information pollution	<b>572</b>	<b>3.63</b>	<b>.566</b>
Act as honest brokers	572	3.26	.821
Partner other stakeholders on information and digital literacy	<b>572</b>	<b>3.38</b>	<b>.784</b>

Source: Researcher's Analysis, 2022

**Key:** *Strongly Agree=4, Agree=3, Strongly Disagree=2, Disagree=1*

From the data in Table 24 respondents want members of the civil society organisations to act as honest brokers in Ghana (M=3.54, SD=.561) than in Nigeria (M=3.26, SD=.821). Partnering with other stakeholders on information and digital literacy (M=3.38, SD=.784) and (M=3.35, SD=.562) is equally much favoured by respondents in Nigeria and Ghana respectively. It is, however, surprising that the Ghanaian respondents paid little attention to the place of civil society organisations in educating the public about the threat of information pollution. The intriguing lies with the fact that the respondents are not consistent in their views about the need for the non-governmental organisations to support public service media organisations and local news outlets because civil society organisations and NGOs are both needed for successful support to media establishments and practitioners. For instance, NGOs support establishments and practitioners through self-funded or sponsored capacity building can only be more effective when CSOs are also carry along in the areas of public sensitization and mobilization of genuine information creators and fact-checkers who would act as honest brokers.

**Table 25: Respondents' Expected Measures from the Electorates**

<b>Ghana</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Educate the public about the threat of information pollution	<b>583</b>	<b>3.43</b>	<b>.567</b>
Act as honest brokers	583	3.17	.411
Partner other stakeholders on information and digital literacy	<b>583</b>	<b>3.26</b>	<b>.460</b>
<b>Nigeria</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Educate the public about the threat of information pollution	<b>572</b>	<b>3.50</b>	<b>.671</b>
Act as honest brokers	572	3.33	.832
Partner other stakeholders on information and digital literacy	<b>572</b>	<b>3.42</b>	<b>.710</b>

Source: Researcher's Analysis, 2022

**Key:** Strongly Agree=4, Agree=3, Strongly Disagree=2, Disagree=

Comparing data in Table 25 with those presented in Table 4.17, it is clear that sampled respondents in both countries mostly want electorates to educate the public about the threat of information pollution (Ghana;  $M=3.43$ ,  $SD=.567$ ; Nigeria;  $M=3.50$ ,  $SD=.671$ ). They equally believed that electorates should partner other stakeholders on information and digital literacy (Ghana;  $M=3.26$ ,  $SD=.460$ ; Nigeria;  $M=3.42$ ,  $SD=.710$ ). These suggests that with the assistance of other stakeholders such as those in the civic space, electorates are expected to play the role of educating themselves on the danger of creating and spreading polluted messages or information, and actively involved in spreading adequate literacy regarding information pollution before, during and after electoral cycle. This is quite understandable because electorates are part of the people vulnerable to polluted messages or information, especially while making political and voting decisions.

#### ***3.2.4. Effectiveness of the Provisions of Existing Laws for Information Pollution Management before and during the Elections.***

**Research Question Four:** *How effective were the provisions of existing laws for misinformation and disinformation management before and during the elections?*

This research question was developed with the aim of knowing efficacy of the provision of existing laws for control and management of misinformation, disinformation and mal-information before and during the studied elections. Basically, the aim is to see how the punishments associated with each of the offence stated in the analysed three legal documents and discussed previously could be said to be sufficient enough to deter people and organisations from spreading polluted messages. This is imperative as the respondents believed that NGOs and CSOs have significant roles to play in reduction or elimination of polluted messages or information during electoral cycle. The needed answers were derived from the data collected through in-depth interview and document analysis methods of the study.

Outcomes of the document analysis are presented before reporting those from the in-depth interview in the qualitative result presentation section.

**Table 26: Punishment Categories in Selected Legal Documents Regard Spread of Misinformation, Disinformation and Mal-Information in Ghana and Nigeria**

<i>Nigeria</i>	Misinformation	Disinformation	Mal-information
<i>Criminal Code Act 1990</i>			
Section 187			⊘
Section 375		⊘	
Section 376	⊘	⊘	
Section 377	⊠		
Section 379 subsection 4	⊠		
Section 379 subsection 5	⊠		
Section 379 subsection 6	⊠		
Section 379 subsection 7	⊠		
Section 379 subsection 8	⊠		
Section 380			
<i>Ghana</i>			
<i>Criminal Code Act 2003</i>			
Section 185 subsection 1		⊠	
Section 185 subsection 3		⊠	
Section 208 subsection 1		⊠	
Section 208 subsection 2		⊠	
Section 313 paragraph (a)	⊠		
Section 313 paragraph (b)	⊠		
<i>Electronic Communication Act, 2008</i>			
Section 74	⊘		
Section 76, subsection 1	⊠		
Section 76, subsection 2	⊠		

⊘ Severe Punishment

⊠ No Punishment

⊠ Moderate Punishment

Data in Table 26 explicitly reveal the categories of punishment found in the two countries' legal documents (Acts) that align with information pollution types studied in this study. These data could be compared with those presented in Table 4.14 because the data enhance understanding of how the governments in the countries want the offenders of the cases related to creating and spreading false information or polluted messages should be made responsible for their actions. According to the data, Nigerian Criminal Code Act, 1990 does not provide punishment<sup>4</sup> for one of the sections, which resonate with the spread of false information or message with the intention of not causing harm. However, the country seems to have severe punishment<sup>5</sup> for four sections that denote spreading misinformation, disinformation and mal-information. In Ghana, analysis indicates that there 7 moderate<sup>6</sup> and 2 severe punishments for disinformation and misinformation, and misinformation respectively. From these results, one can conclude that the Acts have measures for checkmating activities of polluted messages' creators and recreators before and during the studied presidential elections if the law enforcement agencies, their personnel, members of the CSOs and NGOs lived up to the expected performance. However, the results suggest the contrary, when looking at the data in Table 4.8 where respondents described messages or information of the candidates and political parties on their social media accounts mostly as misinformation and disinformation before and during the elections.

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<sup>4</sup> No punishment means there is no fine or number of years offender(s) will pay or spend in prison for violating any provision of section or subsection in the Acts.

<sup>5</sup> Severe punishment means fine and number of years offender(s) will pay or spend in prison for violating any provision of section or subsection in the Acts.

<sup>6</sup> Moderate punishment means that offender(s) will either pay fine or go(es) to prison for violating any provision of section or subsection in the Acts.



### *3.2.5. Extent of the Spread of Information Pollution in Influencing Electorates' Voting Decisions in Ghana and Nigeria*

**Research Question Five:** *To what extent did the spread of misinformation and disinformation influence electorates' voting decisions in the two countries?*

The essence of formulation of this research question, which is to determine the level at which the spread of polluted messages or information eroded the decision of the electorates during the two elections, have been established from the previous outcomes, especially from the results that indicate that candidates, politicians, political parties and members of parties largely created, distributed and redistributed the messages. The findings that both countries do not absolutely have severe punishments for sections and subsections of the Criminal Code Acts and Electronic Act that resonate with the features and definitions of categories of studied information pollution also support the relevance of the research question. Therefore, examining the place of the spread of the messages or information helps the researcher in understanding impact of information pollution on election, which is one of the elements needed for proper appraisal of electoral cycle or process and sustainable democratic governance in the two countries. Answers to this research question are sought through survey and in-depth interview methods. Meanwhile, the outcomes of the survey method are presented below, while those from the in-depth interview are presented and interpreted under the qualitative result presentation section.

**Table 27: Emotional Status of Respondents after reading Polluted Messages**

<i>When false information or message with the intention of not causing harm was read</i>	<b>Ghana</b>	<b>Nigeria</b>
Sad	<b>110(18.9%)</b>	<b>182(31.8%)</b>
Angry	71(12.2%)	<b>138(24.1%)</b>
Fear	<b>385(66.0%)</b>	<b>176(30.8%)</b>
Happy	17(2.9%)	76(13.3%)

<b>Total</b>	<b>583(100%)</b>	<b>572(100%)</b>
<i>When false information or message with the intention of causing harm was read</i>		
Sad	<b>128(22.0%)</b>	<b>203(36.4%)</b>
Angry	84(14.4%)	<b>156(28.0%)</b>
Fear	<b>363(62.3%)</b>	<b>167(29.9%)</b>
Happy	8(1.4%)	32(5.7%)
<b>Total</b>	<b>583(100%)</b>	<b>558(100%)</b>
<i>When genuine information or message with the intention of causing harm was read</i>		
Sad	<b>170(29.2%)</b>	<b>164(29.5%)</b>
Angry	<b>107(18.4%)</b>	<b>124(22.3%)</b>
Fear	<b>215 (36.9%)</b>	<b>172(31.0%)</b>
Happy	91(15.6%)	95(17.1%)
<b>Total</b>	<b>583 (100%)</b>	<b>555(100%)</b>

Source: Researcher's Analysis, 2022

Since attitudinal dispositions of people are expected to evolve from their emotions, Table 27 focuses on the data that indicate four categories of emotion that usually trigger people's perception about human beings, objects and entities. These emotions were explored because there is a likelihood that they would greatly shape respondents' processing of any of the information pollution types (Misinformation, disinformation and mal-information) before making voting decision. According to the data, Nigerian respondents were more sad, angrier and worried when they read all the categories of information pollution than the Ghanaian respondents. However, respondents in both countries are nearly close in the level of sadness and concerned exhibited when they read genuine information or message with the intention of

causing harm. When 182 Nigerian respondents representing 31.8% read false information or messages without the intention of causing harm were sad, while 30.8% (n=176) were worried about the information or messages. With over 36% of the Nigerian respondents who were concerned about the polluted message or information (misinformation), Ghanaian respondents (n=385) representing 66.0% were equally worried about the message or information. When disinformation was read, 203 Nigerian respondents representing 31.8% of 572 total respondents were sad, whereas only 22.0% (n=128) of the Ghanaian respondents (n=583) exhibited the same feeling. However, 62.3% (n=363) of the Ghanaian respondents (n=583) were worried about false information or message with the intention of causing harm. In terms of reading genuine information or message with the intention of causing harm, respondents in both countries nearly tied on being sad. One hundred and sixty-four Nigerian respondents, which represents 29.5% of the respondents (n=572), and 170 Ghanaian respondents representing 29.2% were sad. This result also permeates when their fear emotion was analysed. In this regard, with 36.9% (n=215) of the respondents (n=583) Ghana leads, while Nigeria follows with 172 respondents (31.0%). These results are expected to influence the ways the respondents perceived the candidates and political parties that participated in the elections before making their voting decision. Expectedly, messages or information that made respondents sad and worried are likely to shape voting decision and patterns than those embedded with fear element because cognitive bias is easily developed from messages or information laden with the emotion types.

**Table 28: Acceptance that Polluted Messages influence voting decision by election year**

<i>Ghana</i>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
2016	<b>8</b>	<b>3.63</b>	<b>.518</b>
2020	<b>15</b>	<b>3.53</b>	<b>.834</b>
Both	163	3.26	.828
None	<b>397</b>	<b>3.55</b>	<b>.659</b>
<i>Nigeria</i>			
2015	64	3.25	.836
2019	<b>98</b>	<b>3.67</b>	<b>.622</b>
Both	<b>250</b>	<b>3.63</b>	<b>.588</b>
None	<b>155</b>	<b>3.47</b>	<b>.800</b>

Source: Researcher's Analysis, 2022

**Key:** *Strongly Agree=4, Agree=3, Strongly Disagree=2, Disagree=1*

While previous data in Table 27 show that respondents in both countries were not happy and worried about the spreading of false information or message with the intention of causing or not causing harm, and genuine information or message with the intention of causing harm, data in Table 28 indicate respondents' acceptance that the polluted messages or information influenced their voting decision during the years of the studied elections. Though, the average mean value of the response options (Strongly Agree, Agree, Strongly Disagree and Disagree) was 3.63 and 3.53 for 2016 and 2020 presidential elections respectively in Ghana, which indicates better score against others categories (both and none), it could be concluded that the studied information pollution categories did not influence voting decision of the number of respondents who have 3.65 (n=8) and 3.53 (n=15) mean scores. Analysis further reveals that 397 respondents who reported that they did not vote during any of the elections believed that the information pollution influenced their voting decision (M=3.55, SD=.659). From the Ghanaian perspective, only 163 respondents out of the

total 583 respondents believed that the disorderliness in the information or messages communicated by the conveyors identified earlier shaped their decision during the elections. These results are quite different from what were found for Nigeria. Ninety-eight respondents ( $M=3.67$ ,  $SD=.622$ ) who voted during 2019 presidential elections reported that polluted messages influenced their decision, while 250 respondents who voted during the two elections ( $M=3.63$ ,  $SD=.588$ ) believed that the polluted messages or information shaped their voting decision. While substantial respondents in Ghana ( $n=397$ ), who did not vote during the two elections, reported insipid of the polluted messages or information in their choice of candidates, 155 respondents in Nigeria ( $M=3.47$ ,  $SD=.800$ ) expressed same sentiment. Despite the report of not voting during any of the elections by these respondents their subsequent responses were valid for the study because the item was only used as seater item with the intent of determining respondents who are likely to maintain neutral position. This is confirmed when all respondents in the two countries responded to a question item that probed the extent to which the polluted influenced their decision during the elections. The outcome of the analysis is presented in Table 4.21 and interpreted accordingly.

**Table 29: False and misleading information influence decision-making during presidential elections**

	<b>Ghana</b>	<b>Nigeria</b>
No Extent	19(3.3%)	68(11.9%)
Little Extent	125(21.4%)	116(20.3%)
Great Extent	<b>262 (44.9%)</b>	<b>165(28.3%)</b>
Very Great Extent	<b>177(30.4%)</b>	<b>223(39.0%)</b>
<b>Total</b>	<b>583(100%)</b>	<b>572(100%)</b>

Source: Researcher's Analysis, 2022

Data in Table 29 has clearly shown that the cheater item worked in Ghana because 75.3% ( $n=440$ ) of the respondents ( $n=583$ ) agreed that false and misleading

information actually shaped their decision making during the two presidential elections, whereas they had earlier reported that polluted messages or information did not influence their decision. In Nigeria, analysis reveals that 67.3% (n=388) of the respondents agreed that polluted messages influenced their decision during 2015 and 2019 presidential elections. With these results, expectation is that the level at which they received the messages or information from the national newspapers played significant role in the influence. This is explored from the data presented in Table 4.22, where their views about patterns of receiving the polluted messages or information are examined specifically.

**Table 30: Extent of receiving Polluted Messages from Ghanaian and Nigerian Newspapers**

<i><b>Ghanaian Newspapers</b></i>	<b>Not at all much</b>	<b>Not much</b>	<b>Much</b>	<b>Very Much</b>	<b>Total</b>
Ghana Web	116(19.9%)	<b>209(35.8%)</b>	<b>138(23.7%)</b>	<b>120(20.6%)</b>	<b>583(100%)</b>
My Joy Online	115(19.7%)	<b>254(43.6%)</b>	<b>177(30.4%)</b>	37(6.3%)	<b>583(100%)</b>
Citi Newsroom	133(22.8%)	<b>295(50.6%)</b>	<b>149(25.6%)</b>	6(1.0%)	<b>583(100%)</b>
Peace FM Online	<b>147(25.2%)</b>	<b>308(52.8%)</b>	104(14.8%)	24(4.1%)	<b>583(100%)</b>
Daily Graphics	<b>176(30.6%)</b>	<b>253(43.4%)</b>	38(6.5%)	116(19.9%)	<b>583(100%)</b>
<i><b>Nigerian Newspapers</b></i>					
The Punch	<b>127(22.1%)</b>	<b>206(36.1%)</b>	<b>104(18.2%)</b>	<b>134(23.5%)</b>	<b>571(100%)</b>
Vanguard	<b>125(21.9%)</b>	<b>249(43.7%)</b>	<b>117(20.5%)</b>	<b>79(13.9%)</b>	<b>570(100%)</b>
The Guardian	<b>137(24.0%)</b>	<b>268(46.9%)</b>	110(19.2%)	57(10.0%)	<b>572(100%)</b>
Premium Times	<b>152(27.4%)</b>	<b>236(42.5%)</b>	99(17.8%)	68(12.3%)	<b>555(100%)</b>
The Nation	<b>156(27.3%)</b>	<b>203(35.5%)</b>	111(19.4%)	102(17.8%)	<b>572(100%)</b>

Source: Researcher's Analysis, 2022

From Table 30, it could be inferred that majority of the respondents in both countries received polluted messages or information less across the newspapers. However, there are differences in the extent to which Ghanaian newspapers were perceived as published messages or information that did not aim at causing or not causing harm, and genuine information with the intention of causing harm against the Nigerian newspapers. From the combination of the responses of those who chose *not at all much* and *not much* options, it is obvious that over 70% of the Ghanaian respondents (n=583) did not receive polluted messages from *Peace FM Online* (n=455), *Daily Graphics* (n=429) and *Citi Newsroom* (n=428). Two hundred and fifty-eight respondents representing 44.3% of the respondents (n=583) reported receiving of false and misleading information from *Ghana Web*, while 214 respondents (36.7%) received same information from *My Joy Online* often before and during the presidential elections. In Nigeria, 79.9% of the respondents (n=572) agreed that they did not receive much polluted messages or information from *The Guardian*. *Premium Times*, *Vanguard* and *The Nation* followed with 69.9% (n= 388), 65.6% (n= 374) and 62.8% (n=359) respondents accordingly. Meanwhile, 41.7% (n=238) of the respondents (n=572) noted that *The Punch* published polluted messages or information, which they received before and during the elections. This is also in consonance with *The Nation* (37.2%=213), *Vanguard* (34.4%=196) and *Premium Times* (30.1%=167). These results suggest that Nigerian newspapers cannot be exonerated from creation and publication of false or misleading information sourced from the candidates, political parties or developed by their employees (that is opinionated content written by journalists). Constant receiving and reading of the polluted messages or information is expected to shape the decision of the respondents while choosing any of the candidates or political parties during the studied presidential elections.

**Table 31: Percentile of Respondents who believe that false and misleading information influence their voting decision during elections and extent of receiving the information from selected Ghanaian newspapers**

Weighted Average (Definition 1)	Extent of receiving false and misleading messages	Percentiles						
		5	10	25	50	75	90	95
<i>Ghanaweb</i>	Not at all	2.00	2.00	2.00	3.00	3.75	4.00	<b>4.00</b>
	Not Much	1.00	2.00	3.00	<b>3.00</b>	<b>4.00</b>	4.00	<b>4.00</b>
	Much	2.00	2.00	2.00	3.00	<b>4.00</b>	4.00	<b>4.00</b>
	Very Much	2.00	2.00	3.00	3.00	<b>4.00</b>	4.00	<b>4.00</b>
<i>My Joy Online</i>		<b>5</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>90</b>	<b>95</b>
	Not at all	1.80	2.00	3.00	3.00	<b>4.00</b>	4.00	<b>4.00</b>
	Not Much	2.00	2.00	3.00	<b>3.00</b>	<b>4.00</b>	4.00	<b>4.00</b>
	Much	2.00	2.00	2.00	3.00	3.00	4.00	<b>4.00</b>
	Very Much	1.00	1.80	2.00	3.00	3.00	4.00	<b>4.00</b>
<i>Citi Newsroom</i>		<b>5</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>90</b>	<b>95</b>
	Not at all	1.70	2.00	3.00	3.00	<b>4.00</b>	4.00	<b>4.00</b>
	Not Much	2.00	2.00	2.00	<b>3.00</b>	<b>4.00</b>	4.00	<b>4.00</b>
	Much	2.00	2.00	3.00	3.00	<b>4.00</b>	4.00	<b>4.00</b>
	Very Much	1.00	1.00	1.00	3.00	<b>4.00</b>	.	.
<i>Peace FM Online</i>		<b>5</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>90</b>	<b>95</b>
	Not at all	2.00	2.00	3.00	3.00	<b>4.00</b>	4.00	<b>4.00</b>
	Not Much	2.00	2.00	3.00	<b>3.00</b>	<b>4.00</b>	4.00	<b>4.00</b>
	Much	1.25	2.00	2.25	3.00	<b>4.00</b>	4.00	<b>4.00</b>
	Very Much	1.00	1.00	2.00	2.50	3.00	4.00	<b>4.00</b>



<i>Daily Graphics</i>		<b>5</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>90</b>	<b>95</b>
	Not at all	2.00	2.00	3.00	3.00	<b>3.00</b>	4.00	<b>4.00</b>
	Not Much	2.00	2.00	2.00	3.00	<b>4.00</b>	4.00	<b>4.00</b>
	Much	1.00	1.90	3.00	3.00	4.00	4.00	4.00
	Very Much	2.00	2.00	3.00	3.00	<b>4.00</b>	4.00	<b>4.00</b>

Source: Researcher's Analysis, 2022

**Key:** *Very Great Extent=4, Great Extent=3, Little Extent=2, No Extent=1* are used for measuring extent of using the false and misleading information while making voting decision

Data in Table 31 reinforce those presented in Table 30 because it explicates the extent to which the polluted messages or information received by the respondents in Ghana influenced voting decision. Following combination of *very much and much*, and *not much and not all* response options *as indicative of quantity of receiving polluted messages*, it could be inferred that majority of the respondents were influenced after reading the messages or information. This makes the outcomes surprising in all ramifications because previous results showed that the respondents received less polluted messages or information from the newspapers. Specifically, using 75% and 95% criteria, it is glaring from the data that polluted messages or information from the newspapers contributed to the choice of candidates by the respondents. Observing the data using 95% criterion, it is evident that 432 respondents out of 455 respondents who indicated that they did not receive the polluted information much from *Peace FM Online* actually considered the information before voting. This is also evident among 408 respondents out of 429 respondents who also reported low level of receiving misinformation, disinformation and mal-information from *Daily Graphics*. For *My Joy Online*, 351 respondents out of 369 respondents were also thought over their decision after reading the messages. The difference in the number of the respondents who received much of the information

and believed that the information influenced them is minute. Analysis shows that from 258 respondents who indicated that they received much of the polluted messages from *Ghana Web*, 245 respondents have their decision shaped by the messages. This is also pertinent to those (n=214) who received the information from *My Joy Online*. The messages shaped the decision of two hundred and three of the respondents (n=214). These results are not surprising because the earlier results based on the data presented in Table 4.3 indicated that the respondents moderately received polluted messages from *Peace FM Online*, *Daily Graphics*, *My Joy FM Online* and *Ghana Web*. Similar results and insights are explored for Nigeria after the data presented in Table 32.

**Table 32: Percentile of Respondents who believe that false and misleading information influence their voting decision during elections and extent of receiving the information from selected Nigerian newspapers**

Weighted Average (Definition 1)	Extent of receiving false and misleading messages	Percentiles						
		5	10	25	50	75	90	95
<i>The Punch</i>	Not at all	1.00	1.00	2.00	3.00	<b>3.00</b>	4.00	<b>4.00</b>
	Not Much	1.00	1.00	2.00	<b>3.00</b>	<b>4.00</b>	4.00	<b>4.00</b>
	Much	1.00	1.00	2.00	4.00	<b>4.00</b>	4.00	<b>4.00</b>
	Very Much	1.00	2.00	2.00	<b>4.00</b>	<b>4.00</b>	4.00	<b>4.00</b>
<i>Vanguard</i>		<b>5</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>90</b>	<b>95</b>
	Not at all	1.00	1.00	2.00	3.00	<b>4.00</b>	4.00	<b>4.00</b>
	Not Much	1.00	1.00	2.00	3.00	<b>4.00</b>	4.00	<b>4.00</b>
	Much	1.00	1.00	2.00	3.00	<b>4.00</b>	4.00	<b>4.00</b>
	Very Much	1.95	2.90	3.00	4.00	<b>4.00</b>	4.00	<b>4.00</b>

<i>The Guardian</i>		<b>5</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>90</b>	<b>95</b>
	Not at all	1.00	1.00	2.00	3.00	<b>4.00</b>	4.00	<b>4.00</b>
	Not Much	1.00	1.00	2.00	3.00	<b>4.00</b>	4.00	<b>4.00</b>
	Much	1.00	1.00	2.25	4.00	<b>4.00</b>	4.00	<b>4.00</b>
	Very Much	1.00	2.80	3.00	4.00	<b>4.00</b>	4.00	<b>4.00</b>
<i>The Nation</i>		<b>5</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>90</b>	<b>95</b>
	Not at all	1.00	1.00	2.00	3.00	<b>4.00</b>	4.00	<b>4.00</b>
	Not Much	1.00	1.00	2.00	3.00	<b>4.00</b>	4.00	<b>4.00</b>
	Much	1.00	1.00	2.00	3.00	<b>4.00</b>	4.00	<b>4.00</b>
	Very Much	1.00	2.00	3.00	4.00	<b>4.00</b>	4.00	<b>4.00</b>
<i>Premium Times</i>		<b>5</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>90</b>	<b>95</b>
	Not at all	1.00	1.00	2.00	3.00	3.75	4.00	<b>4.00</b>
	Not Much	1.00	2.00	2.00	3.00	<b>4.00</b>	4.00	<b>4.00</b>
	Much	1.00	1.00	2.00	3.00	<b>4.00</b>	4.00	<b>4.00</b>
	Very Much	1.00	2.00	3.00	4.00	<b>4.00</b>	4.00	<b>4.00</b>

Source: Researcher's Analysis, 2022

**Key:** *Very Great Extent=4, Great Extent=3, Little Extent=2, No Extent=1* are used for measuring extent of using the false and misleading information while making voting decision

Data in Table 32 are similar to those presented in Table 30, because it reveals the number of respondents from the total respondents (n=572) sampled in Nigeria whose voting decision were shaped after reading moderately and highly received polluted messages from the selected Nigerian newspapers. Using the same 95% criterion adopted for the discussion of the influence among the Ghanaian respondents, analysis reveals that 385 respondents from 405 respondents who indicated that they received the information moderately from *The Guardian* had the course of thinking

through their choices before voting during the two presidential elections (2015 and 2019). Three hundred and sixty-nine respondents from 388 respondents who reported the received of the messages from *Premium Times* equally thought through their choices before voting. It was 355 respondents from 374 respondents who followed the same path having received the messages from *Vanguard* newspaper. Three hundred and forty-one respondents from 359 respondents who also indicated the moderate polluted messages receiving from *The Nation* had similar experience. According to the data, from 239 respondents who received much of the information from The Punch, 227 participants reported that the messages influenced their decision. Two hundred and two of the 213 respondents for *The Nation* equally expressed the same sentiment. For the respondents (n=198) who indicated the receive of abundant misinformation, disinformation and mal-information from *Vanguard*, the information had impact on the decision of 188 respondents. From the emerging results and insights from the two countries, it is apparent that misinformation, disinformation and mal-information had impact on the decision of the studied respondents. As submitted previously, this is expected to have several implications on how the respondents view the candidates' personality and competence in relation to other stakeholders within the political institution. It is, therefore, imperative to examine the extent to which these messages significantly contribute to selection of presidential candidates presented to political parties in both countries.

**Table 33: Perceived Influence of Polluted Messages on Voters' Decision and Possibility of Influencing Choice of the Right Candidates**

			Asymptotic Significance (2-sided)
<i>Ghana</i>	<b>Value</b>	<b>df</b>	
Pearson Chi-Square	<b>19.850<sup>a</sup></b>	<b>9</b>	<b>.019</b>
Likelihood Ratio	18.568	9	.029

Linear-by-Linear Association	2.311	1	.128
N of Valid Cases	583		
<i>Nigeria</i>			
Pearson Chi-Square	<b>78.171<sup>a</sup></b>	<b>9</b>	<b>.000</b>
Likelihood Ratio	90.608	9	.000
Linear-by-Linear Association	9.539	1	.002
N of Valid Cases	572		

Source: Researcher's Analysis, 2022

From the data in Table 33, it can be seen that strong linkage exists between perceiving polluted information as a factor that shapes decision and possibility of the information influencing choice of the right candidates. In Ghana, this could be deduced from Pearson Chi-square value of 19.850<sup>a</sup> at the degree of freedom of 9, which is significant at 0.05 ( $P < .019$ ). This is also recorded among the Nigerian respondents with a significant difference in Pearson Chi-square value ( $v = 78.171^a$ ) and perfect level of significant ( $< .000$ ). Based on the value, this result suggests that 78% of the perceived influence of MDMal could be determined from the possibility of the information influence on choice of the right candidates in Nigeria. With this, it could be concluded that polluted messages have greater and moderate impact on voting decision in Nigeria and Ghana respectively. This position is further examined through the outcomes of the hypotheses formulated in chapter one.

### **Hypotheses Testing**

**H<sub>1</sub>:** *Identified conveyors and victims of polluted messages or information in the newspapers will significantly associate with those identified by the respondents*

Like genuine information creation, recreation and sharing with the public, people and organisations behind polluted information also need to be identified without necessarily forgetting the categories of people and organisations they (conveyors) want to suffer because of their vested interests. This position facilitates

formulation of this hypothesis. This is a sufficient condition hypothesis because it proposes that identification of the conveyors and victims of the polluted messages or information from the newspapers by the researcher is needed for better understanding of how the respondents were able to identify them (conveyors and victims). This is basically hinged on the premise that respondents must have been significantly exposed to the conveyors and victims through reading of the news reports where they appeared. The needed data were generated from content analysis and survey research methods of the study. Chi-square was adopted for analysis of the data and the outcomes are presented and discussed below.

**Table 34: Association between identified conveyors by the respondents and those found in the newspapers**

			<b>Asymptotic Significance (2-sided)</b>
<i>Ghana</i>	<b>Value</b>	<b>df</b>	
Pearson Chi-Square	35.969 <sup>a</sup>	40	.652
Likelihood Ratio	38.865	40	.521
Linear-by-Linear Association	.199	1	.655
Nominal by Nominal Symmetric Measures (Phi)	<b>.248</b>		.652
N of Valid Cases	583		
<i>Nigeria</i>			
Pearson Chi-Square	55.407 <sup>a</sup>	60	.644
Likelihood Ratio	48.593	60	.854
Linear-by-Linear Association	.560	1	.454
Nominal by Nominal Symmetric Measures (Phi)	<b>.314</b>		.644
N of Valid Cases	561		

Source: Researcher's Analysis, 2022

Data in Table 34 reveal that there was no significant association between conveyors identified by the respondents in the two countries and those found in the newspapers. This is premised on the fact that the expected less than or approximate 0.05 level of significance was not attained in both countries. Therefore, alternate hypothesis which says that there is association between identified conveyors by the respondents and those found in the newspapers is rejected, while null hypothesis which indicates that there is no significant association between conveyors identified by the respondents and those found in the newspapers is accepted. However, nominal by nominal symmetric measurement of the variables indicates that there is a 31.4% ( $\Phi=.314$ ) variation of conveyors identified by the respondents in those discovered in the Nigerian newspapers while in the Ghanaian newspapers 24.8% ( $\Phi=.248$ ) was found. These results imply that while the Pearson Chi-square scores are not sufficient (because of low level of significance) to establish the association, the symmetric measurement analysis suggests that a relative portion of the identified people and organisations as conveyors are equally present in the newspapers in both countries. Relatively, it could be concluded that the newspapers shaped the views of the respondents towards knowing the conveyors of polluted information.

**Table 35: Association between identified victims by the respondents and those found in the newspapers**

			Asymptotic Significance (2-sided)
<i>Ghana</i>	<b>Value</b>	<b>df</b>	
Pearson Chi-Square	<b>165.870<sup>a</sup></b>	<b>108</b>	<b>.000</b>
Likelihood Ratio	164.441	108	.000
Linear-by-Linear Association	-	-	-
Nominal by Nominal Symmetric Measures (Phi)	<b>.426</b>		<b>.000</b>

N of Valid Cases	912		
<i>Nigeria</i>			
Pearson Chi-Square	<b>601.654<sup>a</sup></b>	<b>156</b>	<b>.000</b>
Likelihood Ratio	477.768	156	.000
Linear-by-Linear Association	-	-	-
Nominal by Nominal Symmetric Measures (Phi)	<b>.747</b>		<b>.000</b>
N of Valid Cases	1078		

Source: Researcher's Analysis, 2022

Above Table 35 contain data that are similar to those presented in Table 34. However, little difference exists within the context that the data focus on the association between victims of information pollution identified by the respondents and those content analysed in the Ghanaian and Nigerian newspapers. From the data, there was a significant association between victims of the information pollution identified by the Ghanaian respondents and those found in the country's selected newspapers (Value=165.870<sup>a</sup>, df=108, p<.000). This also applies to Nigeria (Value=601.654<sup>a</sup>, df=156, p<.000). In terms of symmetric measurement analysis, the data also revealed significant association between the two variables. According to the data, 74.7% (Phi=.747) of the respondents' identification is accounted for in those discovered from the Nigerian newspapers. It is 42.6% (Phi=.426) for the Ghanaian newspapers. Absolutely, both the Pearson Chi-square and symmetric measurement association are sufficient to conclude that the people and organisations discovered in the newspapers as victims are the ones equally perceived by the respondents as sufferers of the false or misleading information with the intention of not causing and causing harm.



**H<sub>2</sub>:** *There is a significant relationship between extent of reporting and receiving polluted messages from the newspapers and its influence on decision-making of voters during presidential election*

Similar to hypothesis 1, this hypothesis was designed to determine significant connection that exist between quantity of misinformation and disinformation, and the extent of receiving the information by the respondents. This is a deterministic hypothesis because the researcher aims at finding significant possible variation of severity of reporting and receiving the information from the newspapers. Data that were gathered through content analysis method and those from the survey method (where quantity of the information and extent of receiving misleading and false information were probed respectively) were used for testing of the hypothesis. Specifically, the thought of the respondents about the kind of effect the spread of false and misleading information can have on the choice of the right candidate during the elections was used explanatory variable while the extent to which false and misleading information influence decision-making was employed as dependent variable. The extent of reporting polluted information and receiving them through the newspapers were considered as instrumental variables. Two-stage least square regression was employed for analysis of the generated data.

**Table 36: Connection and Variation of the extent of reporting and receiving polluted messages from the newspapers in the influence on decision-making of voters during presidential election**

<b>Ghana</b>	Multiple R	<b>.081</b>
	R Square	<b>.007</b>
	Adjusted R Square	.005
	Std. Error of the Estimate	.991
<b>Nigeria</b>	Multiple R	.019
	R Square	.000
	Adjusted R Square	-.001
	Std. Error of the Estimate	1.056

Source: Researcher's Analysis, 2022

In line with the data presented in Table 36, the combination of reporting and receiving polluted messages is more discernible from the decision-making of studied voters in Ghana than in Nigeria. This could be seen from the Multiple regression score (MR=.081) and R-square score ( $r^2=.007$ ) recorded in Ghana, which indicates 8.1% and 0.7% connection and variation respectively. The results show that the combination of reporting and receiving the messages resonated with the decision-making by 8.1%, while the combination could only be discerned from the decision by 0.7% during the two presidential elections in Ghana. The results are further examined in Table 2.29, where the extent to which the increase in the combination of reporting and receiving the polluted messages facilitated the decision-making of the respondents.

**Table 37: Coefficients Correlation of between extent of reporting and receiving polluted messages from the newspapers and its influence on decision-making of voters during presidential election**

	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
<b>Ghana</b>	.014	1.539		<b>.009</b>	<b>.993</b>
	.867	.443	<b>.780</b>	<b>1.957</b>	<b>.051</b>
<b>Nigeria</b>	3.546	1.341		2.643	.008
	-.169	.378	-.115	-.446	.655

Source: Researcher's Analysis, 2022

Examination of the data for standardised coefficients in Table 37 shows that there was positive and negative increase in the decision-making of the respondents when they considered the extent to which the newspapers reported the polluted messages and they received the messages. According to the data, one unit of reporting

and receiving the messages led to 78.0% (Standardised Coefficients=.780,  $t=1.957$ ,  $p>.051$ ) increase in making decision regarding who to vote for during the presidential elections in Ghana while it was 11.5% (Standardised Coefficients=-.115,  $t=-.446$ ,  $p>.655$ ) reduction in considering the messages as part of the decision-making process in Nigeria. However, in both countries, the percentage or the increase was not sufficient because above 0.05 or less than 0.05 expected level of significance was not recorded. Based on the results presented under Table 4.28 and Table 4.29, it is clear that the extent of reporting and receiving polluted messages had moderate influence on voters' decision-making in Ghana than in Nigeria. This outcome is also expected when the information pollution types are analysed along with the election results attained by the selected political parties during the elections.

**H<sub>3</sub>:** *There is a significant relationship between perceived influence of polluted messages or received from the newspapers on voting decision and the choice of the right candidates*

This hypothesis advances some of the earlier results that established greater and moderate influence of the polluted information on the choice of the right candidates by the respondents. It is a probabilistic relation hypothesis that helps in locating significant possible variation of information pollution in electing right candidates in both countries. The data generated for the questionnaire item that asked for the extent to which the respondents consider polluted information as powerful in shaping their decision-making processes and electing qualified candidates were analysed using linear regression approach. The outcomes are presented in Table 38 and Table 39.

**Table 38: Relationship between influence of false and misleading information on the choice of the right candidates**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					Square Change	F Change	df1	df2	Sig. F Change
Nigeria	.129 <sup>a</sup>	.017	.015	.700	.017	9.684	1	570	.002
Ghana	.063 <sup>a</sup>	.004	.002	.723	.004	2.316	1	581	.129

Source: Researcher's Analysis, 2022

Data in Table 38 reveal two categories of significant results. The first imperative result is that a strong connection between polluted information and the choice of the right candidates exists in both countries. This could be inferred from the correlational score for both countries. It also emerged that a certain percentage of variation of the polluted information could be found in the decision that shaped electing the right candidates. This could be deduced from the R-square score of both countries. According to the data, strong evidence exists that polluted information shaped the choice of the right candidates in Nigeria ( $r^2=.017$ ,  $df1=1$ ,  $df2=570$ ,  $p<.000$ ) than in Ghana ( $r^2=.004$ ,  $df1=1$ ,  $df2=570$ ,  $p>.129$ ). R-square score attained for Nigeria indicates that 1.7% of the perceived influence of false and misleading information accounted for the choice of the right candidates, whereas Ghana recorded less than 1% ( $r^2=.004$ ). In Nigeria, the variation is applicable to 570 respondents out of the total respondents ( $n=572$ ), while the outcome is better appreciated among 581 respondents out of 583 Ghanaian respondents. For more clarification of these results, in Table 4.31, data that establish the extent to which the variation leads the respondents to making decision regarding electing the right candidates during the presidential elections are

presented. This is basically done to finding out the quantum of leading that occurs when the respondents have been exposed to the polluted messages through the newspapers and probably other media that were not considered in this study.

**Table 39: Coefficients Correlation of influence of false and misleading information on the choice of the right candidates**

	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
Nigeria	<b>3.284</b>	<b>.089</b>	<b>.129</b>	<b>37.071</b>	<b>.000</b>
	<b>.088</b>	<b>.028</b>		<b>3.112</b>	<b>.002</b>
Ghana	<b>3.300</b>	<b>.116</b>	.063	<b>28.332</b>	<b>.000</b>
	.057	.037		1.522	.129

Source: Researcher's Analysis, 2022

Table 39 presents unstandardised and standardised coefficients of the two variables, which indicate the severity of relationship that exists between the predictor (influence of false and misleading information on voting decision) and outcome (the choice of the right candidates) variables. As Table 39 reveals the relationship between the variables is significant for Nigeria when standardised (Beta=.129, t=3.112, p<.002) and unstandardised (B=3.284, Std. Error=.089, p<.000) coefficients are appropriated. There was no significant relationship between the variables for Ghana within the standardised coefficients (Beta=.063, t=1.522, p>.129) consideration. However, a significant linkage exists between the variables within the context of unstandardised coefficients (B=3.300, Std. Error=.116, p<.000). Based on the standardised coefficients outcomes, these results imply that in Nigeria one percent of believing that false and misleading information shapes voting decision led to considering it by 12.9% while making choice among the competing candidates during the 2015 and 2019 presidential elections. This is strongly evident in the samples based

on the level of significance attained ( $p < .002$ ), which is within the expected level of significance ( $p < .005$ ). Using the same approach, the data show that 6.3% of the polluted information influence on decision making could only distort the choice of the right candidates in Ghana. However, the percentage contribution is not sufficient to accept this because of above 0.05 level of significance expected which was recorded in the country. Meanwhile, in terms of unstandardised coefficients, Ghana slightly edged Nigeria out by 0.016 unit of perceived influence of false and misleading information on voting decision making variation in deciding the choice of the right candidates. This could be gleaned from unstandardised coefficients score of 3.300 recorded for Ghana and 3.284 attained for Nigeria. These scores are significant ( $p < 0.05$ ) for the two countries. From the analysis and results, the tested hypothesis is only tenable in Nigeria because there was significant relationship between the predictor and outcome variable. Thus, false and misleading information distorted the choice of the right candidates in Nigeria than in Ghana. Therefore, the alternate hypothesis, which says there is a significant relationship between perceived influence of polluted messages or information received from the Nigerian newspapers on voting decision and the choice of the right candidates is accepted, while the null hypothesis is rejected.

**H<sub>4</sub>:** *There is a significant correlation between reporting and receiving polluted messages, and results of the candidates during the presidential elections in both countries*

This hypothesis aims at revealing possible causal relation between information pollution with the specific consideration of the quantity of reportage and extent of receiving it by the respondents, and election outcomes in both countries. For the reportage, attention was paid to quantity of each information pollution type (misinformation and disinformation), while extent of receiving the information from each newspaper was stressed for receiving polluted information variable. Basically, do you think the spread of false and misleading information can affect the choice of

the right candidate during the election? was considered as explanatory variable while extent of reporting and receiving the polluted messages from the newspapers were the instrumental variable. The dependent variable was the presidential election outcomes of each party. The data for these variables were analysed with the results of the candidates during the two presidential elections in both countries. It is important to state that each country's election results were serially averaged (series mean) across the respondents and analysed along with the respondents' perceptions of the influence of inaccurate or misleading information or messages on their voting decisions during the elections.

**Table 40: Connection and Variation of reporting and receiving polluted messages in the results of the candidates during the presidential elections in both countries**

<b>Ghana</b>	Multiple R	<b>.035</b>
2016	R Square	.001
	Adjusted R Square	-.001
	Std. Error of the Estimate	103595.359
2020	Multiple R	.029
	R Square	.001
	Adjusted R Square	-.001
	Std. Error of the Estimate	136581.626
<b>Nigeria</b>	Multiple R	<b>.025</b>
2015	R Square	.001
	Adjusted R Square	-.001
	Std. Error of the Estimate	108764.866
2019	Multiple R	.004
	R Square	.000
	Adjusted R Square	-.002
	Std. Error of the Estimate	90530.308

Source: Researcher's Analysis, 2022

From the data presented in Table 40, it emerged that a relative percentage of connection exists between reporting and receiving polluted messages, and the outcomes of the elections in Ghana than in Nigeria. According to the multiple regression score, the two variables resonated with the outcomes by 3.5% in Ghana (Multiple R=.035) and accounted for 0.1% ( $r^2=.001$ ) in the 2016 election results. The same percentage of variation of the variables in the election results was attained for the Nigerian 2015 election ( $r^2=.001$ ). The data suggest that the polluted messages or information have more impact on the first presidential election of the two selected presidential elections in both countries. While one percentage ( $r^2=.001$ ) variation of the combined variables was found in the 2020 Ghanaian election results, zero percentage ( $r^2=.000$ ) was discovered for the 2019 Nigerian election results. These outcomes are examined further with the data presented in Table 4.33, where how the level of increase in the combined variables exert the election results is explored.

**Table 41: Coefficients Correlation of reporting and receiving polluted messages and results of the candidates during the presidential elections in both countries**

	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
<b>Ghana</b>					
2016	794870.640	160910.214		<b>4.940</b>	<b>.000</b>
	-38865.585	46332.659	<b>-.286</b>	<b>-.839</b>	<b>.402</b>
2020	1069523.754	212146.363		<b>5.041</b>	<b>.000</b>
	-41994.706	61085.650	<b>-.230</b>	<b>-.687</b>	<b>.492</b>
<b>Nigeria</b>					
2015	680662.780	138225.407		4.924	.000
	23586.484	38972.461	.156	.605	.545
2019	726156.310	115051.754		<b>6.312</b>	<b>.000</b>
	-3148.553	32438.682	<b>-.024</b>	<b>-.097</b>	<b>.923</b>

Source: Researcher's Analysis, 2022



Data in Table 41 reinforce those presented in Table 41 from the perspective of revealing the level at which the degree of reporting and receiving polluted messages or information shaped the views of the respondents which is expected to influence final decision regarding who to vote for during the presidential elections. According to the data, the reports of polluted messages affected results of the two Ghanaian presidential elections, but it had a positive influence on the outcome of 2015 Nigerian presidential election than the one conducted in 2019, signifying non-consideration of frames and agendas included in the polluted messages by the respondents. This could be discerned from the standardised coefficients beta score attained by the two countries through the sampled respondents. One unit of reporting and receiving the polluted messages by the respondents during the 2016 and 2020 presidential elections in Ghana translated to 28.6% (Standardised Coefficient Beta=-.286,  $t=-.839$ ,  $p>.402$ ) and 23.0% (Standardised Coefficient Beta=-.230,  $t=-.687$ ,  $p>.492$ ) reduction in the election results respectively. In Nigeria, one unit of reporting and receiving same messages increased 2015's election results by 15.6% (Standardised Coefficient Beta =.156,  $t=.605$ ,  $p>.545$ ) and reduced 2019's election results by 2.4% (Standardised Coefficient Beta=-.024,  $t=-.097$ ,  $p>.923$ ).

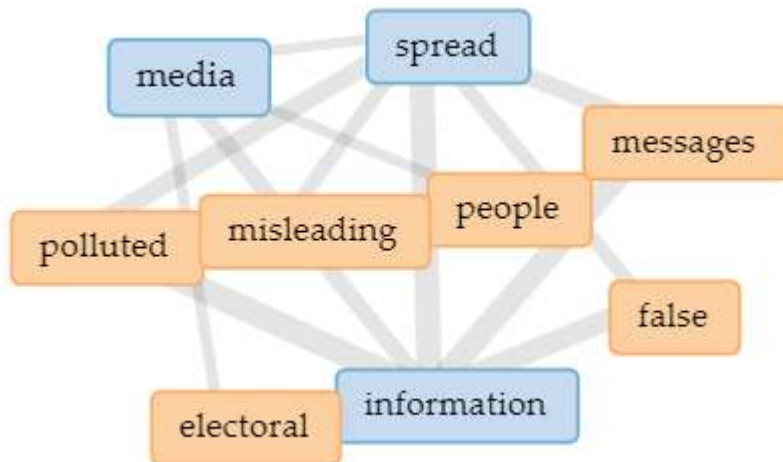
### **3.3. Presentation of Qualitative Results**

This section focuses on the outcomes of the in-depth interview research method, which afforded the researcher opportunity to gain deeper insights about information pollution during presidential elections from both countries through the perspective of media practitioners and information managers of the two main political parties in each country considered in the study. The responses are analysed using thematic approach. A total of seven and thirty-eight main and sub-themes respectively are generated from the responses. Data in Figure 3 and Figure 4 summarise the key concepts and linkage among the concepts that emerged from the responses. From both

Figures, the two categories of information pollution and the roles of the key stakeholders examined earlier occurred predominantly.



**Figure 3: The 25 Dominant Concepts in the Responses of the Interviewees after Coding and Categorisation**



**Figure 4: Links among dominant concepts in the Interviewees' Responses after Coding and Categorisation**

### *3.3.1. Nature and Characteristics of Information Pollution*

Three sub-themes of illiteracy rate, struggle for political power, and unprofessionalism emerged from the responses of the media and information managers of newspapers and political parties, respectively, for the purpose of understanding the nature and characteristics of information pollution that occurred during the presidential elections in both countries. The high incidence of illiteracy in both countries was commonly cited by interviewees as the primary cause in the creation and dissemination of polluted messages. They believed that having a formal education did not preclude persons or organisations from participating in the information pollution market, because using social networking sites, which serve as conduit pipes for information pollution, needs more than a basic or higher education. Users of social networking sites and traditional media, according to them, lack adequate usage expertise, particularly the ability to fact-check or cross-check received messages or information from other sources. To put it another way, new social networking sites and other technologies permitted the spread of contaminated messages during the elections.

Everyone is now a publisher. Everyone now creates material, and you can share it without having to rely on other people. ... If you're on Facebook, Twitter, or Instagram, you'll recognize purposeful attempts as propaganda. (Political Party/Information Manager/Nigeria/IDI)

Another major element of the increased spread of polluted messages during the elections, which was frequently cited by political party media managers, is the struggle for political power. No political parties, candidates, or their supporters, according to the managers, will not be involved in the information chaos. This is based on the idea that everyone wants to persuade voters to support his cause, which increases the necessity for spreading lies when there are not enough facts to go around. Based on the views expressed by the managers, it appears that those who spread false and misleading information during elections must do so with the primary

goal of bringing down organisations and individuals. Allowing the targets to lose their reputation or be viewed by the public, particularly the electorate, as incompetent to lead the country politically and economically is the most common outcome. This aligns with the outcomes of the survey and content analysis methods, which revealed that respondents considered reputational and demeaning leadership as costs of spreading polluted messages about people and organisations during the elections. According to one of the party's information managers:

You see I need to be frank with you that politics and governance are two different things. When you need power, you need to do everything to get to the power. That, I believe you need to understand. If we need power, we need to do everything possible to get the power. We need to make sure that anything we are giving to our potential voters should some way somehow supersede what our opponents are saying. (Political Party/Information Manager/Ghana/IDI)

While the illiteracy rate element appears to be universal among all participants in the information pollution, unprofessionalism was mostly mentioned among information managers and journalists as one of the key boosters of polluted messages conveyed during the elections. Both managers and journalists, according to the respondents, lack the skills and knowledge needed to report on issues and demands without spreading inaccurate and misleading information. Citizen journalists, influencers, bloggers, and some traditional media outlets engaged in information pollution as a result of a lack of training on how to produce balanced and reliable stories. The interviewees also mentioned instances in which political parties and other players in the political structure hired journalists, bloggers, and influencers with the sole intention of spreading incorrect information and misleading the public. The element is described thus by the information manager of a political party in Nigeria:

...those who are charged with the responsibility of midwifing information, and as conveyor belt, I see lots of evidence that the skill level is so low. Because of that, the engagements you have with journalists and government cannot help the society.

Because the journalist themselves are not demonstrating competence. I expect phone calls every 5:00 PM, 6:00 PM, from several journalists asking me CPS, they'll just call me and say PDP said this what's your reaction. When I say, sorry, no comments, then they take offense. That what I tell my editor. My editor said that there must be reaction but that is my choice. (Political Party/Information Manager/Nigeria/IDI)

### ***3.3.2. Process and Tactics of Spreading Polluted Messages***

Based on the responses from the interviewees, the process of creating and disseminating polluted messages during the elections is multi-pronged. Therefore, the chain of creation and dissemination has different people or organisations at different stages of the chain. The first creation pattern is *party-to-party*, which depicts a situation where a political party spreads false and misleading information about ability and capacity of another political party. When this exists, according to the interviewees, especially the political party Information Managers, mal-information took the center stage in the information pollution ecosystem during the electoral cycle of the elections. This information pollution type (mal-information), false and misleading information with the intention of causing and not causing harm are disseminated mostly during the elections routinely and significantly. Since taking over from a ruling political party demands involvement in the activities that could help the opposition parties, the interviewees believed that opposition parties spread falsehoods to the public and the electorate during the elections. This leads to *party-to-citizen* as the second pattern of creating and disseminating polluted messages. This pattern affords both the ruling and opposition parties' opportunity to communicate various falsehoods to the public at no cost because it is about winning and doing everything possible. For instance, one of the interviewees cited an instance where an opposition political party, leveraged perceived bad governance of a ruling party to spread polluted messages.

I believe that the ruling government deployed huge disinformation into the electoral process and environment by creating the impression that the then government of the People Democratic Party was massively corrupt and creating the impression that they were coming to change that order of corruption, which has become a problem of our country and they also gave the impression that the economy was terribly awful and very bad, and they were coming to improve on the economy. They do not want to listen to what the opposite side is saying. They will not take the advice of the opposite side and as such at the end of the day, we all have the collateral damage we are all consumed in their lies that they came to market to us reality which by and large has become a mass of failure and for which every Nigerian today suffer for. (Political Party/Information Manager/Nigeria/IDI)

Leveraging candidate's qualities for campaign and failed to perform while in office was also referenced by the interviewees as a form of misinformation and disinformation during the elections. Political parties are not only the conveyors in the identified creation and dissemination process. According to the responses from the media managers, *citizen-to-citizen pattern* co-existed with the *party-to-party* and *party-to-citizen* patterns during the elections. This pattern is better appreciated within the earlier result that citizen journalists, bloggers and influencers played prominent roles in the creation and dissemination of the messages because a number of them were engaged by political parties, candidates and their supporters to increase information pollution level during the elections. The media managers believed that public reliance on citizen journalists, bloggers among others than conventional media information contributed to information pollution experienced in both countries. Specifically, the public did not take extra cautions in consuming and spreading information published or broadcast by the journalists, bloggers and influencers, which compound the spread of misinformation and disinformation. Apart from the fact that political stakeholders engaged digital creators, analysis of the responses of the interviewees, most importantly the views expressed by the Information Managers of

the political parties show that *media-to-the public* pattern also existed during the elections. The managers believed that this pattern existed because of the *perennial weaknesses* in the conventional media ecosystem in both countries. They copiously cited *ownership pattern and influence* as the key enablers of the pattern. According to them, media independence and control on what get covered and published are not absolute. Because of the ownership influence media cannot absolutely say the truth, therefore they engage in spreading false and misleading information that favour their owners. One of the managers noted that a ruling party did not give media level playing field for reporting same development issues and needs the way they (media) did during previous election. For instance, media houses that align with the orientations and philosophies of some political parties spread false and misleading information. There were instances where politicians owned media houses because of the need to get fair reportage having seen some media establishments taking side, not balanced in their reportage of them (politicians). *Government-to-the public* was the last pattern that emerged during the election. Government officials (political appointees in most cases), who believed that they need to protect the ruling party, disseminated false and misleading information using images that indicated activities of the government through social and some conventional media establishments.

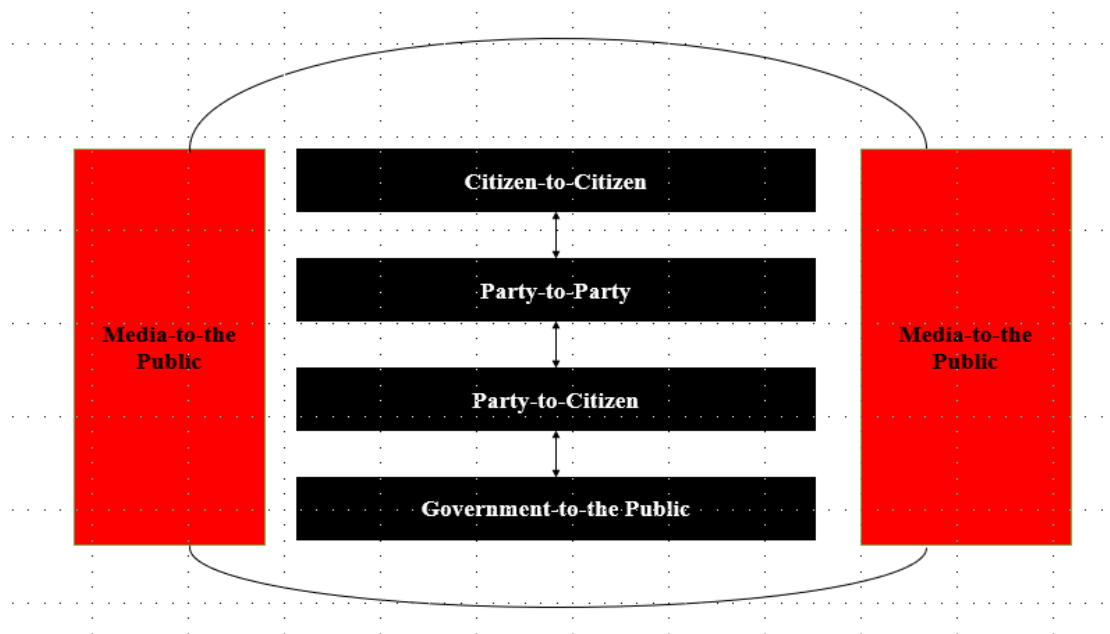
...through series of articles that we did, especially during the elections, you would see multiple cases where officials of the government made deliberate false claims to tilt. They made false claims especially before the election to win the narrative that they were doing well whereas of course they were not doing well. We had cases politically and even on security issues where you would see images of our armed forces doing this or doing that, whereas they're not true. (Media Manager/Nigeria/IDI).

Overall, the responses suggest that the patterns and tactics employed by the conveyors were effective because of the *use of alternative sources of information* and *lack of government control* on activities of social media users and media

weaknesses in terms of not having absolute independence and ownership influence on what get covered and reported electoral cycle. The position of one of the media managers sum the place of ownership influence and lack of absolute independence of the media in enliven the spread of polluted messages or information during the elections thus:

...it is more or less divided down the line, where parts of the media are for an opposing party and the other for the ruling party. And so, when it happens, you only have a few, I mean, you could count them on your fingertips, those who are independent, truly independent in the case that they do not owe any allegiance to anybody.

And so, the opposition party would want to use their media houses to propagate their agenda, the ruling party would also want to use the media that is friendly to their cause to also push through their agenda. It doesn't give us fair reportage and an objective level playing field. Because people would get information and without verifying it, they run to that media house to talk about it only for them to realise that it probably could have been exaggerated or it would have been falsehood down right. (Media Manager/Ghana/IDI).



**Figure 4: Network of Information Pollution Patterns during the Elections**



### 3.3.3. *Controlling and Managing Polluted Messages*

During the elections, a number of actions were taken by interested stakeholders in both countries, ranging from media managers to political party information managers and representatives of electoral bodies, to dilute the severity of polluted messages or information. From the point of view of the media, the submission was that the media provided *balanced and accurate information*. In this regard, the interviewees stated that the media made great use of its social and agenda-setting powers to report on concerns and requirements at various stages of the political cycle. However, there are times when the conventional media violates this ideal and the ethics of the profession (journalism). According to a media manager in Nigeria:

The baseline is the violation of ethics of journalism. We have our ethics: balance, originality, devotion to truth. The media has never grown beyond its environment. The media environment we are in is an environment of fake news, environment of falsehood, environment of subjectivity. Not all but once a reporter, a journalist, a media executes violate the ethics of the profession which is objectivity, which is balance, fidelity. Because the media is not for or against anybody. The final analysis should be for the people of Nigeria. But once there's in neglect, violation of ethics, then you will begin to see how reporters peddle falsehood through their subjective imputations, subjective feelings, subjective analysis. But if they are objective, if they are truthful, if they abide by the codes and ethics of the profession then all these challenges will be resolved. (Media Manager/Nigeria/IDI)

*Constant training* aimed at improving journalists' knowledge and abilities in *gatekeeping and fact-checking information* was thought to have played a key impact in limiting the amount of tainted information spread during the elections. This viewpoint was primarily articulated by media executives. They stated that media employees were more schooled on how to recognize falsehoods or misleading claims

from political stakeholders and citizens who are likely to be recruited by political players before the electoral cycle stages. This was insufficient, as the managers referenced that newspapers and other media outlets were constantly *creating and disseminating information that improved the public's understanding* of how polluted messages can influence their decision-making, as well as being wary of misinformation and disinformation spread by political actors and their supporters. The public was also informed of the importance of questioning the sources of information they received before believing and disseminating it to others. According to the interviewees, this is critical since contaminated message makers and re-creators are expected to take responsibility for what they generate and re-distribute respectively. Information Managers of electoral organisations emphasised the efficiency of the Commissions' information pollution debunking method in lowering the impact of polluted messages. This method encompassed constant responses to fake news, misinformation, and disinformation from a variety of stakeholders, particularly political players including party chairmen, media managers, politicians, and supporters of political parties and candidates. According to the managers, *press releases* and *press conferences* were heavily used to prevent the dissemination of inaccurate messages or information. Furthermore, the managers indicated *strategic contact with media professionals*, particularly editors and reporters who covered the election process. This was done in order to clarify the processes and actions taken by the Commissions at each stage of the electoral cycle in order to prevent rumor-mongering and the dissemination of incorrect and misleading information to the public.

#### ***3.3.4. Existing and Proposed Regulations***

According to the interviewees, there are rules in place that should have considerably aided in limiting the dissemination of polluting messages during the elections, but they are ineffective for a variety of reasons. One-sided regulatory

efforts, poor enforcement mechanisms, public distrust in government, and a polarised culture over human rights are the key reasons. According to information managers of the studied political parties and media managers, existing defamation and libel laws, as well as other regulations that criminalize the spread of false information in the two countries, are supposed to cater for the control and management of information pollution during elections. They (rules and regulations) were, nevertheless, weak due to *perceived one-sided enforcement by enforcement authorities*. The Ghanaian interviewees referenced the issue of selective arrest and prosecution numerous times.

The laws are there, but its application is what I can see has been selective because I mean someone has said so many things on his platform, he has misinformed and said a whole lot of things and he has not been brought before, the state has not prosecuted him. I mean that same law that could not prosecute him has been able to arrest someone else, who is also a presenter. The laws are there, but it depends on who we want to prosecute. (Political Party/Information Manager/Ghana/IDI)

Apart from the fact that enforcement agencies were selective in their arrests and prosecutions of offenders, the Ghanaian perspective stressed that it was practically impossible for enforcement and regulatory bodies to use provisions in existing laws and statutory regulations for control and management of messages on digital platforms such as social networking sites.

But when it comes to these online stuffs, people have spoof accounts on those platforms. You can't even chase them. The law has not been that effective in tackling it there. Unless you can put your face to it, and even then, it becomes even hard to even get the person. In that state, law has been nothing but ineffective. It's safe to say that it's been left. That space has been left to the determination of the companies that run it. So maybe if we come together and report you on Twitter and Twitter thinks that is correct, they will pull you out, you know that kind of thing. But aside that

there's not been any direct intervention from the state or from our laws in that space.  
(Media Manager/Nigeria/IDI)

The enforcement agencies' flaws, particularly selective arrest and prosecution, are consistent with the earlier submission under Table 4.18 of the quantitative results, which states that measures in the examined Acts can only be effective if law enforcement agencies, their personnel, CSOs, and NGOs perform as expected. When they did not perform as expected, the public would have a high level of suspicion in their actions.

The judicial process is slow. That's why people are now calling for new laws that would be much more specific. Because if a government takes a media house to court, it can last forever. If a private citizen takes a media organisation to court, it can last forever. (Media Manager/Nigeria/IDI)

This applies to government officials and leaders as well. The views of the interviewees revealed this stance. It was discovered that *public distrust of government* was a major influence in the ineffectiveness of current laws and regulations, as well as *the rejection of the government's regulatory efforts*. According to the respondents, the governments of the two countries were unable to prosecute offenders because public leaders and their political supporters are not immune from the dissemination of false information. As a result, the Ghanaian and Nigerian governments must first be accountable and honest in their interactions with the public.

Recently, when our President started to rent private jets for his foreign trips and then the minority ranking member on foreign affairs put in a motion to ask the finance minister to come and account for how much that travel costs? When he came, he said that he cannot give that information because it is the defence Minister that is supposed to be addressing some of those things now the defence Minister comes and says that issues on defence budgets are not discussed in public because that is what we have made in our laws. Now, because these two people have failed to give

information to the people. If someone comes out to say that OK, every time when the president rents a jet for an hour, it cost us \$17,000. How did we get there? Because somebody refused to be accountable to the people. (Political Party/Information Manager/Ghana/IDI).

A Nigerian political party information manager held similar concerns, believing that the ruling party was not accountable or transparent enough. He claims that:

...government is the biggest industry in the country. It is those who run the affairs of the government that will lead Nigerians on the path that they want them to toe. But if we have a government that will collect money to go and create a project and at the end of the day the people cannot even find the project. And we must create a news to cover the fact that they collected money and chop the money they didn't use to do the project. (Political Party/Information Manager/Nigeria/IDI).

Another major obstacle hindering efficient control and management of the development and distribution of polluted messages during the elections was *the disagreement among citizens, state and non-state actors about the need to regulate digital space*. Several efforts or attempts by governments to strengthen the space for balanced and truthful information dissemination before the election cycle were limited by some stakeholders on the basis that regulating the space would deny citizens' rights to freedom of expression and digital platforms in all ramifications due to perceived ulterior motives of the governments.

Systematically, they end up tampering with free speech. They hide under their good intention, along the line of the disguise of saying that they want to regulate and then they now want to now tie the hand of the media. It's peculiar to African governments. They ride on the back of free media to power. But when they get to power, they now turn around to tie the hand of the free media. Because free media that was helpful to them when they were bidding for power will now cause a check on them as critical stakeholders. (Media Manager/Nigeria/IDI).

According to the interviewees, this polarised stakeholders, making it difficult to effectively govern and manage the information pollution environment. Governments in both countries struggled to persuade citizens and non-state actors of the importance of effectively regulating the digital space and traditional media ecosystem in relation to the emerging information pollution during the elections due to polarisation. According to one of the media managers in Nigeria, it is imperative to deal with digital space. However, the government cannot use this to silence the press or prevent citizens from voicing their dissatisfaction with the government's actions and leaders when anything goes wrong.

If we don't deal with social media, it's going to set this nation on fire, fantastic point but there's always that concern that the intention of the government is not actually targeted at dealing with fake news. No, actually targeted at dealing with misinformation, but trying to stifle the people's ability to express themselves and be informed. Possibly significantly to be able to communicate about the performance of the government, whether the government is doing wrong or doing bad or doing well. (Media Manager/Nigeria/IDI).

Despite the drawbacks of enforcing existing laws and regulating the media ecosystem, the interviewees believed that regulatory efforts should continue and that specific laws aimed at reducing the creation and spread of polluted messages should be enacted rather than relying on existing laws that were not designed to control and manage information pollution.

...until we are able to regulate the new media properly and to hold people responsible for what they do within the media space, we can have the law, but we should be able to enforce them. That is the only way we can ensure that people trust the process and that people will be responsible enough. But if you do not do it to A but B does the same thing and you decide to punish B, then I'm afraid, that will not be able to work. (Media Manager/Ghana/IDI).

### *3.3.5. Conveyors, Victims and Gainers of Polluted Messages*

Different groups of persons and organisations are equally active in the information pollution, similar to the patterns of creating and disseminating polluted messages during the elections outlined previously. Citizen journalists, bloggers, and influencers actively engaged in the transmission of incorrect and misleading information with the purpose of inflicting or not causing harm, according to media managers' perspectives. This applies to government officials, lawmakers, and members of ruling parties, as well as civilians.

Maybe you are very good citizen journalists and people follow you a lot, then you go and put in some wrong information. And then you get people on the streets when it is not necessary, and by the time everybody would say Jack, the harm had already been done. You don't go out there and then publish that this person has won the election when you know you haven't even seen it... (Media Manager/Ghana/IDI).

These people and organisations were both victims and gainers of the messages in some way. Political parties, officials, and candidates, for example, benefited indirectly from the information pollution by ensuring effective manipulation of electorate's thoughts and attitudes regarding who should be voted for and against during elections. One of the media managers claims that during the elections, citizen journalists, bloggers, and influencers circulated polluted messages:

They don't practise journalism, they only practise advocacy. And if you look at the dissemination of fake news that is there that is their preoccupation. It is so peculiar with social media, particularly in Nigeria, and it is unfortunate because they are not trained. Many of them are not trained. They just open shop in the corner of their rooms. And the tap from other media houses. (Media Manager/Nigeria/IDI)

One of the media managers, confirming the preceding finding that distorted messaging influenced voters' perceptions of political players and other stakeholders in the electoral process, points out that:

We have the level of media practice, we have seen repeated cases of political actors deliberately applying fake news, distorted information to try to make it difficult for the electorates to make a determination or decision with respect to their leaders from the president to governors, lawmakers and all of them. And we absolutely cannot say, or we cannot deny that it's not happening in Nigeria, it happens. It happened in 2019, 2015 and it happened in between the staggered elections that we have and we definitely expect that it's going to happen again in 2023 and the outcomes it's just something that one can only imagine. So as long as people are not able to make that decision freely without being influenced by the kind of incorrect information that they are being fed, it is a threat. (Media Manager/Nigeria/IDI).

### ***3.3.6. Costs of Polluted Messages***

The propagation of polluted messages during the electoral cycle of the two presidential elections damaged peace and tranquility, electoral and voting decision processes, similar to the results that emerged under the quantitative section. Aside from that, the dissemination sparked a wave of panic among individuals and state actors. People's thoughts were not at ease when they read and watched polluted information from the conveyors outlined previously, especially those from citizen journalists, bloggers, influencers, and supporters of stakeholders in the party institution, according to the interviewees. Electoral processes were distorted in the sense that electoral bodies were not permitted to focus on the electoral cycle's main activities. Rather, resources were typically used to combat bogus news, misinformation, and disinformation spread by the conduits. As a result, the interviewees underlined that the spread harmed democratic ideals expected during electoral processes. The polluted messages were sufficient for any right-thinking human being to consider the targets (victims) as irresponsible and incapable to run political and electoral institutions in both countries. This corresponds to the



quantitative result, which shows that one of the consequences of spreading misinformation and disinformation during presidential elections was reputational loss, according to respondents in both nations. The perspectives of some of the interviewees below could help in understanding these consequences:

***Distorting peace and tranquility***

Unnecessary pressure on whoever, that is not what you call development. It wouldn't promote anything apart from promoting strife. Then one of the things that can negate gains in democracy is strife and unnecessary tension, and if these things, misinformation, disinformation can cause unnecessary tension, then it is a threat to democracy. No doubt. (Media Manager/Ghana/IDI).

***Eroded democratic ideals***

Misinformation, disinformation and all that, these are things that takes away not even from Democracy only it takes away from the peaceful existence of society. Now in most instances like disinformation, people actually craft things to go out there and then put it out into the public with an intention to misinform, mislead and all that. (Media Manager/Ghana/IDI).

...the problem now is affecting not just democracy; it affects the relationship between the government and the citizens. It affects the need or the requirements for deepening democracy since a position. And so definitely, the damaged is something that you cannot quantify. (Political Party/Media Manager/Nigeria/IDI).

**3.3.7 Strategic Solutions to Polluted Messages**

From the previous qualitative results, especially those that established effectiveness and ineffectiveness of the existing laws and regulations, it is obvious that there is a need to develop holistic strategies for controlling and managing information pollution during future elections in the two countries. This is hinged on the premise that mixed results have significantly achieved from the existing laws and regulations. From the media managers to the political party information managers, government in each country needs to strike strong partnership with social media

creators, engage in massive public enlightenment programmes before creating restrictive and punishable elements in any regulatory efforts.

I think that is generally the best way to approach that challenge for now and perhaps in the future. I'm tempted really to avoid a situation or any imagination that brings in an external regulation. For instance, from the government to say oh we have to stifle free flow of information because we are considering the implications for national security, that of course has always been used as a pretext for a clampdown on freedom of expression. That is not the option I believe we should consider. (Media Manager/Nigeria/IDI).

### **3.4. Discussion of Findings**

#### ***3.4.1. Types and Quantity of Information Pollution During Ghanaian and Nigerian Presidential Elections***

The study reveals that misinformation was mostly spread by the political and non-political actors in Ghana than in Nigeria. Prior to the two elections, the most common forms of information pollution used by actors in Nigeria were misinformation and disinformation. In both countries, however, the expansion of the types utilizing newspapers was minimal. The findings also demonstrated that elections, as one of the core elements of democracy, face numerous challenges due to manipulation, unnecessary interference from stakeholders, and other possible errors (Schedler, 2002; Hernández-Huerta, 2017), which could cause the pillar of democracy to become unwell-established and considered irrelevant in the selection of political representatives (Schedler, 2002; Hernández-Huerta, 2017; Ferrara, et al., 2020). The outcomes align with the agenda-setting's proposition of the actors' setting agendas for the public about themselves and their opponents or critical stakeholders in the electoral institution. Among the actors, members of the political institutions predominantly engaged in spreading the polluted messages or information. In terms of conveying messages or information with the intention of causing and not causing

harm in Ghana, non-political party organisations, politicians and candidates participated mostly. Analysis reveals that all the stakeholders involved in the creation and dissemination of all the information pollution types. However, members of political parties and civil society organisations disseminated false messages with the aim of not causing harms more than other categories of conveyors. These findings indicate that all the critical stakeholders were the participants in electoral information pollution ecosystem during the elections because of the need to gain more popularity and receive sympathy from the public (Hansen & Lim, 2019; Rúas Araujo; Aral & Eckles, 2019; Leeder, 2019; Van Duyn & Collier, 2019; Wihbey & Barredo-Ibáñez, 2022). In the course of gaining sympathy towards strategic manipulation of the public thought-process and views about targets of the polluted messages or information, framing and propaganda theories have consistently stressed the place of using frames or themes and falsehoods in depicting the targets' qualities and personality as being worthy of seeing as irrelevant in the electoral process and political institutions (Scheufele, 2000; Rowbottom, 2012; Vargo, Guo & Amazeen, 2018).

Party-to-party, party-to-citizen, citizen-to-citizen, media-to-the public (ownership pattern and influence played significant roles in this pattern) and government-to-the public emerged as key patterns of creating and spreading polluted messages or information. Employing these patterns means that creating and spreading polluted messages or information is a matter of developing network of conveyors that would reinforce the messages or information in the public mind. This finding specifically informs that the views expressed by Aral & Eckles (2019) that to combat issues of manipulation in cyberspace, it is important to use multidisciplinary methods to combat and manage the issues of election manipulation in protecting democracy in the digital age needs to be considered. According to the data, these patterns were effective due to public prioritisation of alternative sources of information such as social media platforms instead of relying on traditional media, which have better institutional and organisational regulation. Government and other concerned

stakeholders are helpless because of various contingencies such as fundamental human rights, which must be ensured and protected (Hansen & Lim, 2019).

#### ***3.4.2. Victims of Information Pollution during the Elections***

In both countries, analysis reveals that voters, political parties, candidates, politicians and electoral commissions were the victims of the polluted messages or information. However, political parties were discovered as victims ahead of voters in Ghana while the electoral commission was not found as parts of the key victims like what was discovered in Nigeria. In the Ghanaian newspapers, political parties, politicians and candidates were found as victims. In Nigeria, candidates and electoral body were more victims than other categories of people found in the newspapers. From the newspaper data source, these victims were frequently referenced in the polluted messages or information in Nigeria than in Ghana. These findings are indirectly in line with one of the conclusions of the study conducted by Bradshaw & Howard (2018) that governments and political parties around the world invest largely in testing and usage of computation propaganda to shape the outcome of elections. Likewise, the study of Pierri et al. (2020), which discovered that political actors employed disinformation. These studies are indirectly related with the findings because it has been established that none of the players in the electoral information pollution ecosystem that existed during the elections hardly being the victims without equally being the conveyors.

#### ***3.4.3. Consequences of Information Pollution Spread***

The study reveals reputational damage as the significant consequence of spreading polluted messages or information during the elections, from the respondents' perspective. This is corroborated by the newspaper's finding. However, reputational damage was high in Nigeria than in Ghana. This result aligns with several studies on implications of fake news and propaganda on personalities of politicians and candidates during elections. Largely, the stakeholders were perceived

negatively by voters (Makulilo, 2013; Parahita, 2019; Mazaira-Castro, Ras-Arajo & Puentes-Rivera, 2019; Machado, Kira, Narayanan, Kollanyi & Howard, 2019; Meel & Vishwakarma, 2020; Galeotti, 2021). Analysis also indicates that the propagation of polluted messages during the electoral cycle of the two presidential elections damaged peace and tranquility, electoral and voting decision processes. This result conforms with the assumption of agenda-setting theory that which indicates that media have effects on the people's opinions (Guo & Vargo, 2020) through topics being presented to them as important and may even affect their decision, or to say the theory suggests that media tells the audience what to think about by influencing their views of the world view (Ehrett, et al., 2021; Dreier & Martin, 2010). The findings are also in line with the view that false and misleading information undermine democratic process (Wardle & Derakhshan, 2017; Reilly, 2018).

#### ***3.4.4. Effectiveness and Ineffectiveness of Measures Deployed to Curb the Spread of Information Pollution***

The study reveals that there are existing laws and regulations that align with the features and definition of information pollution including its forms. Likewise, the study indicates that the laws and regulations are capable of controlling spread of polluted messages or information effectively. For instance, analysis of selected legal documents reveals severe punishment for sections that denote spreading misinformation, disinformation and mal-information. However, they were not effective because of varied personal, societal and organisational challenges such as failure of the users of social platforms adherence to public decency or morality, the need for established rule of law before regulation and unprofessionalism among conventional media professionals. The study also establishes that polluted messages or information would have been contained or managed properly if concerned stakeholders have considered initiation of genuine programmes or efforts towards strategic mapping of actors, the messages and patterns of dissemination. These results

partially corroborate with the fact that concerned stakeholders in the electoral institutions in developing countries are weak and lack capacity to withstand network of polluted messages or information conveyors (Ncube, 2019). Despite these results from the respondents, findings from the interviewees indicate that media provided balanced and accurate information. Constant training was held aimed at improving journalists' knowledge and abilities in gatekeeping and fact-checking information. Analysis further reveals that newspapers and other media outlets constantly created and disseminated information that improved the public's understanding of how polluted messages can influence their decision-making, as well as being wary of misinformation and disinformation spread by political actors and their supporters.

#### ***3.4.5. Outcome of the Spread on Electorate and Political Parties/Candidates***

From respondents to the interviewees and content of the newspapers, the study reveals shaping of voting decision as the first dominant consequence of information pollution whether the information was received less or more significantly. During the elections, according to the study, the spread polluted messages or information co-existed with the thinking about choice of the right candidates. This was highly occurred because significant linkage existed between conveyors identified by the respondents in the two countries and those found in the newspapers. Also, the study suggests that perceived connection of the victims identified by the respondents and those referenced by newspapers contributed towards choice of the right candidates. However, false and misleading information distorted the choice of the right candidates in Nigeria than in Ghana. Hypothetically, the types of information pollution spread by the players impacted the two Ghanaian presidential elections negatively while it was a mixed of positive and negative outcomes in Nigeria. These results are better appreciated through the first and second-level agendas of agenda-setting theory because the conveyors of the polluted messages or information firstly succeeded in manipulating public views and or voting decision by attracting their

interest through specific thematic frames that make the public seeing the targets as bad. Secondly, they succeed because of the moderate impact that the polluted messages or information had on the results of each candidate and or political party during the elections based on the premise that voters found the frames as important while making voting decision (Hopmann et al., 2012; Ehrett, et al, 2021; Vargo, Guo & Amazeen, 2018).

## **CHAPTER FOUR. SUMMARY**

### **4.0. Overview**

This chapter recapitulates focuses of the previous chapters with the specific reference to gap in knowledge which was bridged with appropriate research design and methods. The chapter also entails summary of the findings generated from sources of data that were considered in chapter three. The chapter also contains a model developed from the summarised findings discussed and integrated with the existing literature, empirical studies and theoretical propositions. Specific contributions the study makes to the existing knowledge in the field of information pollution within the context of democracy and election are equally presented in the chapter. Overall, the chapter details what beneficiaries of the study need to do regarding information pollution during electoral cycle in the studied countries and others in Africa.

### **4.1. Summary**

The study started on the premise that existing studies have focused specifically on how information pollution influenced the electoral process, electorate, and outcome of presidential elections in Ghana and Nigeria. The majority of these studies have examined information pollution dangers to democracy and governance from the perspective of digital platforms, using actors and non-actors' social media activities and their influences on traditional media. These gaps were addressed using sequential exploratory research design with in-depth interview, content analysis, document analysis and survey as research methods. Leveraging propositions and assumptions of agenda-setting, framing and propaganda theories, the study assessed the types and quantity of information pollution that occurred during presidential elections in Ghana and Nigeria, determined people and organisations that were targeted the most by the



conveyors of forms of information pollution and consequences of the spread of forms of information pollution. The study also assessed effectiveness of measures employed by stakeholders to contain and manage the spread of forms of information pollution. The study equally examined the extent to which the polluted messages or information impacted results of the candidates.

Analysis shows that in Ghana, misinformation was propagated more by political and non-political players than in Nigeria. Misinformation and disinformation were the most prominent forms of information pollution used by actors in Nigeria prior to the two elections. However, the expansion of newspaper-based kinds was small in both countries. Members of political institutions are mostly involved in disseminating tainted messages or information among the actors. In Ghana, non-political party organizations, politicians, and candidates were largely involved in delivering messages or information with the goal of inflicting or not causing harm.

Analysis reveals that all the stakeholders involved in the creation and dissemination of all the information pollution types. However, members of political parties and civil society organisations disseminated false messages with the aim of not causing harms more than other categories of conveyors. Party-to-party, party-to-citizen, citizen-to-citizen, media-to-the public (ownership pattern and influence played significant roles in this pattern) and government-to-the public emerged as key patterns of creating and spreading polluted messages or information. Employing these patterns means that creating and spreading polluted messages or information is a matter of developing network of conveyors that would reinforce the messages or information in the public mind. According to the data, these patterns were effective due to public prioritisation of alternative sources of information such as social media platforms instead of relying on traditional media, which have better institutional and organisational regulation. In both countries, analysis reveals that voters, political parties, candidates, politicians and electoral commissions were the victims of the polluted messages or information. However, political parties were discovered as

victims ahead of voters in Ghana while the electoral commission was not found as parts of the key victims like what was discovered in Nigeria. In the Ghanaian newspapers, political parties, politicians and candidates were found as victims. In Nigeria, candidates and electoral body were more victims than other categories of people found in the newspapers. From the newspaper data source, these victims were frequently referenced in the polluted messages or information in Nigeria than in Ghana.

The study reveals reputational damage as the significant consequence of spreading polluted messages or information during the elections, from the respondents' perspective. This is corroborated by the newspaper's finding. However, reputational damage was high in Nigeria than in Ghana. This result aligns with several studies on implications of fake news and propaganda on personalities of politicians and candidates during elections. The study reveals that there are existing laws and regulations that align with the features and definition of information pollution including its forms. Likewise, the study indicates that the laws and regulations are capable of controlling spread of polluted messages or information effectively. For instance, analysis of selected legal documents reveals severe punishment for sections that denote spreading misinformation, disinformation and mal-information. However, they were not effective because of varied personal, societal and organisational challenges such as failure of the users of social platforms adherence to public decency or morality, the need for established rule of law before regulation and unprofessionalism among conventional media professionals. The study also establishes that polluted messages or information would have been contained or managed properly if concerned stakeholders have considered initiation of genuine programmes or efforts towards strategic mapping of actors, the messages and patterns of dissemination. Despite these results media provided balanced and accurate information. Constant training was held aimed at improving journalists' knowledge and abilities in gatekeeping and fact-checking information. Analysis further reveals

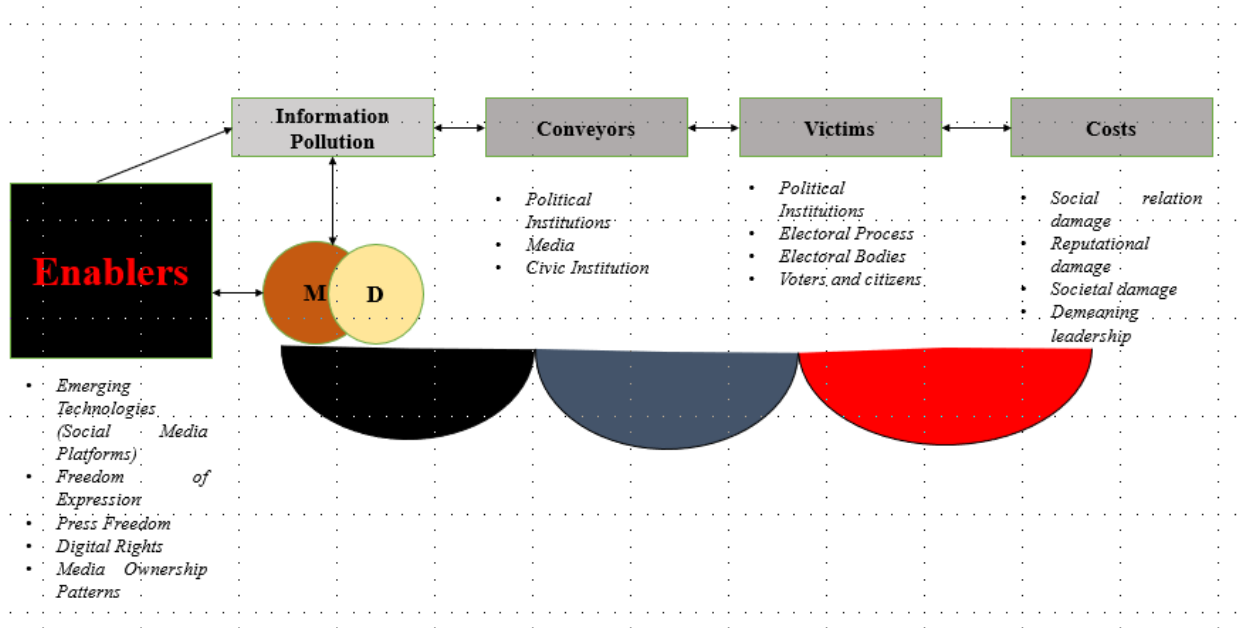
that newspapers and other media outlets constantly created and disseminated information that improved the public's understanding of how polluted messages can influence their decision-making, as well as being wary of misinformation and disinformation spread by political actors and their supporters.

The study reveals shaping of voting decision as the first dominant consequence of information pollution whether the information was received less or more significantly. During the elections, according to the study, the spread polluted messages or information co-existed with the thinking about choice of the right candidates. This was highly occurred because significant linkage existed between conveyors identified by the respondents in the two countries and those found in the newspapers. Also, the study suggests that perceived connection of the victims identified by the respondents and those referenced by newspapers contributed towards choice of the right candidates. However, false and misleading information distorted the choice of the right candidates in Nigeria than in Ghana. Hypothetically, the types of information pollution spread by the players impacted the two Ghanaian presidential elections negatively while it was a mixed of positive and negative outcomes in Nigeria.

#### **4.2. Emerging Model**

Because of the usage of emerging technologies such as social media platforms and the necessity to defend freedom of expression and the press during the two elections, information pollution flourished. The movement for digital rights and media ownership patterns aided in the spread of information pollution during the presidential election cycle, limiting its entire management and regulation. When the opportunity to spread polluted messages or information, particularly misinformation and disinformation, arose, these enablers aided players in political institutions, the media, and civic institutions in creating and recreating messages that target members of political institutions, electoral bodies, and distorting electoral processes that

damage interpersonal relationships, allowing right-thinking people to see the targets as bad in handling political leadership. Figure 5 depicts the situation in more detail, showing that enablers and information pollution forms emerged from the darkness at the beginning and surfaced at the neutrality stage, while conveyors decided to create and disseminate it with the goal of casting the targets in a negative light and causing multiplier effects on individuals, groups, and society as a whole.



**Figure 5: Electoral Cycle Information Pollution Ecosystem (E-CIDE) Model**

#### 4.3. Conclusion

As the menace of information pollution keeps on spreading across different democracies across the world which stress the importance of continuous research on political communication in this area, this study has examined its process and key impacts on African democracy through the study of two different presidential elections in Ghana (2016 and 2020), and Nigeria (2015 and 2019). It emerged that information pollution has two main forms and their spread has five patterns (Party-to-party, party-to-citizen, citizen-to-citizen, media-to-the public and government-to-the public). In the two countries the players, victims and consequences of it on individuals, organisations and society similar and differ. The players were able to

create and target their victims and inflicted severe pains on them (victims) because of polarised society. The main lesson of the study is that information pollution cannot be separated from political activities during electoral process cycle based on the need to protect or respect specific contingencies. At the same time, democracy would continue to be threatened if it is not contained and managed properly. Therefore, stakeholders in the political, electoral and media institutions are in a great dilemma of ensuring fundamental human rights of everyone and saving electoral process cycle from distorted outputs capable of impacting sustainable democracy.

#### **4.4. Contributions to Knowledge**

This study makes significant contributions to existing research on political communication through misinformation and disinformation in African democracy. The study proposes a novel model for identifying and understanding patterns of polluted messages or information during elections in Africa. This model specifically pinpoints psychology of information pollution and elections through the frequency of how it works, patterns of its spread, and the key actors that engage in it. To the best knowledge of the researcher, this study is the first in the global south to show differences in information pollution ecosystem in relation to presidential elections in Africa. If there are similar patterns from the global north, then it will confirm how it threads in the whole world. The overall model, which is titled Electoral Cycle Information Pollution Ecosystem (E-CIPE) Model suggests how to understand election and information pollution in West Africa. The model mainly focuses on understanding the chain of information pollution within the context of election.

#### **4.5. Limitations of the Study**

While this study pays keen attention to some volumes of search gap on the impact of misinformation and disinformation on democracy in Africa through examination of presidential elections, it is worth noting that there are limitations.

1. Only two countries were ably covered with a pilot study in 7 other countries in West Africa. More countries from the region should be considered as they may have peculiar differences given that some other African countries are not former British colonies and speak different languages. For example, in Angola in the Southern part of Africa.
2. The researcher was unable to conduct interviews with all the identified interviewees physically due to COVID-19 disruption and restriction in travelling.
3. Unavailability of some of the news stories in the online archive of the newspapers outlets leads to missing of stories from some years of elections. Some newspapers also restrict copy of their news stories from websites.
4. The absence of use social media pages of the political parties and the newspaper due to limited resources and duration of research

#### **4.6. Recommendations**

Since it is obvious that findings of the study show that the conveying and spreading of information pollution is not limited to only the political actors or parties, it is equally pointed toward other actors of democracy such as NGOs, CSOs, the government and the citizens, the recommendations, therefore, applies to all actors with a specific need for responsibility for each actor to combat the menace of information pollution as a threat to sustainable democracy.

There is a need to prioritise the establishment of education and enlightenment programs in combating the threats of information pollution to the democracy through various means. At the Government level, enlightenment, advocacy, and sensitisation programs should be established by the government as policy before the implementation of punishment. This should be implemented in different levels of society; communities, schools, and workplaces. For the community, the community is driven by National Orientation Agency for example through local communities and different media programs with national and key local languages. For schools, media

and information literacy subjects and courses should be made compulsory at all school levels, from basic to college and up to higher institutions. In the workplace, the usage of special media programme should be tailored to educate working-class people. Bloggers should be recognised and mainstreamed as members of information and communication disseminators and should be well trained on the key values of journalism and reporting during the election process.

Strategic partnership is needed among political parties, politicians, candidates, civil society organisation and non-governmental organisations. This partnership should be tailored towards holistic regulation of social media platforms and digital space. Efforts should be expended on identification of intimidating words and statements related to information pollution that can cause chaos in the two countries. Increase in fact-checking activities and a prohibition from creating fake social media account are highly desirable. Possibly, government need to compel owners of social media platforms to make presentation of national identity card as compulsory requirement for account opening.

The media literacy programme should go beyond adoption at schools (there is very little focus on youth, university students, adults, media professionals like for the kindergarten to grade 12) but should be complemented a holistic approach with collaboration with every stakeholder (NGO, Ministry of Information, National orientation Agency, Radio programmes) or implementation at the grassroots with the most effective languages of the local communities. For professionals, self-regulation for media professionals and practitioners needs to be totally on board to jointly combat information pollution by serving as gatekeepers and watchdogs among themselves. At the election level, during an election, electoral body should set up a neutral committee on information and communication to work with the ministry of information, the National Orientation Agency and other bodies that deal with information to monitor and fight misinformation and disinformation before, during and after elections. There is also a need for rejuvenating public ethics and morality.

This is basically needed among the professionals and citizens who produce, consume and distribute information or media contents during electoral process cycle.



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**Questionnaire****SURVEY ON IMPACT OF MISINFORMATION AND DISINFORMATION ON VOTING DECISIONS IN GHANA**

Dear Respondent,

I am a doctoral researcher at RUDN University, Russia. In line with the production of final research work for the award of the Doctor of Philosophy Degree, I am carrying out a national survey on the impact of misinformation and disinformation on voting decisions in your country. Therefore, I need your help in terms of responding to a few questions. Your response will be treated with a high level of confidentiality and used for academic purposes only.

Thank you.

**SECTION A: PARTICIPATION DURING ELECTORAL PROCESSES**

1. Have you ever voted in a presidential election?

. Yes [ ] b. No [ ]

1. Which of the following elections did you participate in?

. 2016 Presidential Election [ ] b. 2020 Presidential Election [ ] c. Both [ ]

3. Did you post messages about politics and campaigns on social media during elections?

. Yes [ ] b. No [ ]

4. Which of the following election years did you post messages about politics and campaigns on social media the most?

. 2016 [ ] b. 2020 [ ] c. 2015 [ ] d. 2019 [ ]

5. Did you see candidates and political parties' campaign posts before and during the following elections?

	Yes	No
2016 Presidential Election		
2020 Presidential Election		

6. Did you share or retweet campaign posts of the candidates and political parties through social media accounts?

. Yes [ ] b. No [ ]

## **SECTION B: IMPACTS OF MISINFORMATION AND DISINFORMATION IN SOCIETY AND ON DEMOCRACY**

1. How would you describe the posts of the candidates and political parties on their Facebook pages before the elections in the following years?

- a. False information or message with the intention of not causing harm [ ]
- b. False information or message with the intention of causing harm [ ]
- c. Genuine information or message with the intention of causing harm [ ]

2. How would you describe the posts of the candidates and political parties on their Facebook pages during the elections in the following years?

- a. False information or message with the intention of not causing harm [ ]
- b. False information or message with the intention of causing harm [ ]
- c. Genuine information or message with the intention of causing harm [ ]

3. When you read the following information or message, what is your emotional status? (*You can choose more than one option*)

Message	Sa d	Ang ry	Fe ar	Hap py
False information or message with the intention of not causing harm				



False information or message with the intention of causing harm				
Genuine information or message with the intention of causing harm				

4. Who among the following spread your description of the messages listed in questions 1 and 2 of SECTION B?

	<b>Politi cal Party</b>	<b>Candi date</b>	<b>Politi cian</b>	<b>Membe r of Political party</b>	<b>Non- Political Party Organisati on</b>	<b>Civil Society Organisat ion</b>
False information or message with the intention of not causing harm						
False information or message with the intention of causing harm						
Genuine information or message with the intention of causing harm						

5. Which of the following stakeholders did you believe were victims of false or misleading messages during the election(s)? (You can choose more than one option)

. Political party [ ] b. Politician [ ] c. Candidate [ ] d. Electoral Body [ ] f. Voter [ ]

6. Which of the following would you cite as the cost of false and misleading messages before and during elections? (You can choose more than one option)

. Reputational damage [ ] b. Social relation damage [ ] c. Demeaning leadership [ ] d. Societal damage [ ]

7. Which of the following is the main consequence of spreading false and misleading messages during elections in your country? (You can choose more than one option)

- . Affect citizen and government relationship [ ]
- a. Affect citizen and political party relationship [ ]
- b. Citizen and citizen relationship [ ]
- c. Personality and reputation of prominent people [ ]
- d. Reputation and image of organisations [ ]
- e. Generate conflicts among citizens
- f. Generate conflicts among organisations [ ]
- g. Create state of lawlessness and chaos [ ]

### **SECTION C: CONSIDERATION OF SPREAD MISINFORMATION AND DISINFORMATION WHILE VOTING CHOICE CANDIDATES AND POLITICAL PARTIES**

1. To what extent does false and misleading information influence your decision-making during presidential elections?

. Very Great Extent [ ] b. Great Extent [ ] c. Little Extent [ ] No Extent [ ]

2. Which of the following media outlets did you use to receive information during the presidential election?

. Print media [ ] b. TV [ ] c. Radio [ ] d. WhatsApp [ ] e. Facebook [ ] f. Twitter [ ]

3. Which of the following media outlets did you encounter false and misleading information from most during the election?

. Print media [ ] b. TV [ ] c. Radio [ ] d. WhatsApp [ ] e. Facebook [ ] f. Twitter [ ]

4. How much false and misleading information do you encounter from the following media outlets?

	Very Much	Much	Not Much	Not at all
Ghanaweb				
My Joy Online				
Citi Newsroom				
Peace FM Online				
Daily Graphics				

5. Do you think the spread of false and misleading information can affect the choice of the right candidate during the election?

. Strongly Agree [ ] b. Agree [ ] c. Strongly Disagree [ ] Disagree [ ]

6. How much do you agree that there is a need for social media regulation in Nigeria?

. Very Much [ ] b. Much [ ] c. Not Much [ ] Not at all [ ]

### **SECTION C: ROLES OF STAKEHOLDERS IN CURBING MISINFORMATION AND DISINFORMATION DURING ELECTION**

1. What do you believe could be done to avert the spread of false and misleading information in the subsequent elections? (You can choose more than one option)

. Regulating social media space [ ]

a. Arrest people and organisations who spread false messages and misleading information [ ]

b. Develop policies that criminalised spread of false and misleading information [ ]

2. What could the national government do?

<b>Message</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Strongly Disagree</b>	<b>Disagree</b>
Commission research to map information disorder				
Regulate advertisement networks				
Require transparency of ads on social media				
Support public service media organisations and local news outlets				
Roll out advanced cybersecurity training				
Enforce minimum levels of public service news on to the platforms				
Regulation of social media				
Encourage policies on Media, Information and Digital Literacy				

3. What could media organisations do?

<b>Message</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Strongly Disagree</b>	<b>Disagree</b>
Collaborate				
Agree policies on strategic silence				
Ensure strong ethical standards across all media				

Debunk sources as well as content				
Produce more news literacy segments and features				
Tell stories about the scale and threat posed by information disorder				
Focus on improving the quality of headlines				
Don't disseminate fabricated content				
Encourage establishment of fact-checking organisations				
Encourage setting up of fact-checking desks in newsrooms				

4. What could civil societies do?

<b>Message</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Strongly Disagree</b>	<b>Agree</b>
Educate the public about the threat of information disorder				
Act as honest brokers				
Partner other stakeholders on information and digital literacy				

5. What could electorates do?

<b>Message</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Strongly Disagree</b>	<b>Agree</b>
Educate the public about the threat of information disorder				

Act as honest brokers				
Partner other stakeholders on information and digital literacy				

### Demographics

1. Which of these categories do you belong to?

a. Media [  ]

b. Civil Society [  ]

c. Electorate [  ]

d. Others (Please specify) \_\_\_\_\_

2. Please specify your age \_\_\_\_\_

3. Are you a member of a political party?

Yes [  ] No [  ]

## **SURVEY ON IMPACT OF MISINFORMATION AND DISINFORMATION ON VOTING DECISIONS IN NIGERIA**

Dear Respondent,

I am a doctoral researcher at RUDN University, Russia. In line with the production of final research work for the award of the Doctor of Philosophy Degree, I am carrying out a national survey on the impact of misinformation and disinformation on voting decisions in your country. Therefore, I need your help in terms of responding to a few questions. Your response will be treated with a high level of confidentiality and used for academic purposes only.

Thank you.

## SECTION A: PARTICIPATION DURING ELECTORAL PROCESSES

2. Have you ever voted in a presidential election? a. Yes [ ] b. No [ ]
2. Which of the following elections did you participate in? a. 2015 Presidential Election [ ] b. 2019 Presidential Election [ ] c. Both [ ]
3. Did you post messages about politics and campaigns on social media during elections? a. Yes [ ] b. No [ ]
4. Which of the following election years did you post messages about politics and campaigns on social media the most? a. 2015 [ ] b. 2019 [ ]
5. Did you see candidates and political parties' campaign posts before and during the following elections?

	Yes	No
2015 Presidential Election		
6 Presidential Election		

6. Did you share or retweet campaign posts of the candidates and political parties through social media accounts? a. Yes [ ] b. No [ ]

## SECTION B: IMPACTS OF MISINFORMATION AND DISINFORMATION IN SOCIETY AND ON DEMOCRACY

1. How would you describe the posts of the candidates and political parties on their Facebook pages before the elections in the following years?
  - a. False information or message with the intention of not causing harm [ ]
  - b. False information or message with the intention of causing harm [ ]
  - c. Genuine information or message with the intention of causing harm [ ]
2. How would you describe the posts of the candidates and political parties on their Facebook pages during the elections in the following years?

- a. False information or message with the intention of not causing harm [ ]
- b. False information or message with the intention of causing harm [ ]
- c. Genuine information or message with the intention of causing harm [ ]

3. When you read the following information or message, what is your emotional status? (*You can choose more than one option*)

<b>Message</b>	<b>Sad</b>	<b>Angry</b>	<b>Fear</b>	<b>Happy</b>
False information or message with the intention of not causing harm				
False information or message with the intention of causing harm				
Genuine information or message with the intention of causing harm				

4. Who among the following spread your description of the messages listed in questions 1 and 2 of SECTION B?

	<b>Political Party</b>	<b>Candidate</b>	<b>Politician</b>	<b>Member of Political party</b>	<b>Non-Political Party Organisation</b>	<b>Civil Society Organisation</b>
False information or message with the intention of not causing harm						



False information or message with the intention of causing harm						
Genuine information or message with the intention of causing harm						

5. Which of the following stakeholders did you believe were victims of false or misleading messages during the election(s)? (You can choose more than one option)

- a. Political party [ ] b. Politician [ ] c. Candidate [ ] d. Electoral Body [ ] f. Voter [ ]

6. Which of the following would you cite as the cost of false and misleading messages before and during elections? (You can choose more than one option)

- a. Reputational damage [ ] b. Social relation damage [ ] c. Demeaning leadership [ ] d. Societal damage [ ]

7. Which of the following is the main consequence of spreading false and misleading messages during elections in your country? (You can choose more than one option)

- h. Affect citizen and government relationship [ ]  
i. Affect citizen and political party relationship [ ]  
j. Citizen and citizen relationship [ ]  
k. Personality and reputation of prominent people [ ]  
l. Reputation and image of organisations [ ]  
m. Generate conflicts among citizens  
n. Generate conflicts among organisations [ ]

- o. Create state of lawlessness and chaos [ ]

**SECTION C: CONSIDERATION OF SPREAD MISINFORMATION AND DISINFORMATION WHILE VOTING CHOICE CANDIDATES AND POLITICAL PARTIES**

1. To what extent does false and misleading information influence your decision-making during presidential elections? a. Very Great Extent [ ] b. Great Extent [ ] c. Little Extent[ ] No Extent [ ]
2. Which of the following media outlets did you use to receive information during the presidential election? a. Print media [ ] b. TV [ ] c. Radio[ ] d. WhatsApp[ ] e. Facebook[ ] f. Twitter [ ]
3. Which of the following media outlets did you encounter false and misleading information from most during the election? a. Print media [ ] b. TV [ ] c. Radio[ ] d. WhatsApp [ ] e. Facebook[ ] f. Twitter [ ]
4. How much false and misleading information do you encounter from the following media outlets?

	<b>Very Much</b>	<b>Much</b>	<b>Not Much</b>	<b>Not at all</b>
The Punch				
Vanguard				
The Guardian				
Premium Times				
The Nation				

5. Do you think the spread of false and misleading information can affect the choice of the right candidate during the election? a. Strongly Agree [ ] b. Agree [ ] c. Strongly Disagree [ ] Disagree [ ]
6. How much do you agree that there is a need for social media regulation in Nigeria? a. Very Much [ ] b. Much [ ] c. Not Much [ ] Not at all [ ]

## SECTION C: ROLES OF STAKEHOLDERS IN CURBING MISINFORMATION AND DISINFORMATION DURING ELECTION

1. What do you believe could be done to avert the spread of false and misleading information in the subsequent elections? (*You can choose more than one option*)

c. Regulating social media space [ ]

d. Arrest people and organisations who spread false messages and misleading information [ ]

e. Develop policies that criminalised spread of false and misleading information [ ]

2. What could the national government do?

Message	Strongly Agree	Agree	Strongly Disagree	Disagree
Commission research to map information disorder				
Regulate advertisement networks				
Require transparency of ads on social media				
Support public service media organisations and local news outlets				
Roll out advanced cybersecurity training				
Enforce minimum levels of public service news on to the platforms				
Regulation of social media				
Encourage policies on Media, Information and Digital Literacy				

## 3. What could media organisations do?

<b>Message</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Strongly Disagree</b>	<b>Disagree</b>
Collaborate				
Agree policies on strategic silence				
Ensure strong ethical standards across all media				
Debunk sources as well as content				
Produce more news literacy segments and features				
Tell stories about the scale and threat posed by information disorder				
Focus on improving the quality of headlines				
Don't disseminate fabricated content				
Encourage establishment of fact-checking organisations				
Encourage setting up of fact-checking desks in newsrooms				

## 4. What could civil societies do?

<b>Message</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Strongly Disagree</b>	<b>Disagree</b>
Educate the public about the threat of information disorder				
Act as honest brokers				

Partner other stakeholders on information and digital literacy				
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5. What could electorates do?

Message	Strongly Agree	Agr ee	Strongly Disagree	Agr ee
Educate the public about the threat of information disorder				
Act as honest brokers				
Partner other stakeholders on information and digital literacy				

### Demographics

1. Which of these categories do you belong to?

a. Media [ ]

b. Civil Society [ ]

c. Electorate [ ]

d. Others (Please specify) \_\_\_\_\_

2. Please specify your age \_\_\_\_\_

3. Are you a member of a political party?

Yes [ ] No [ ]

## Appendix II

### Semi-Structured Interview Guide

#### Political Party Representatives

##### *Main Questions*

1. Election, political parties, and information work with one another in a democratic setting. However, the rate at which mis-/disinformation are disrupting the process of democracy around the world is getting too much. To what extent do you feel concerned about the threats and how much can they affect the sustenance of democracy in your country?
2. There is no doubt that mis-/disinformation is likely to be circulated during elections. How would you want the stakeholders to manage the flow of information in achieving successful elections and sustainable democracy?
3. As a member and leader of a political party, what roles do the political party need to play during elections regarding the management of information flow from the actors to the ordinary citizens?
4. As a political party leader or member, have you ever come across mis-/disinformation from another political party during an election? If yes, what steps did you take as a political party?
5. As a member of a political party, have you ever or your party intentionally or mistakenly disseminated information that has messages that are not with the reality during the process of election against another political party candidate? If yes, why? If not, why?
6. In the name of curbing the spread of mis-/disinformation, has the government of your country come up with any policy to mitigate the menace? If yes, how effective is it? If not, why do you think they've not

taken any? And how does or can it affect your political party positively, and negatively?

7. What are some of the actions you think the government can take to combat mis-/disinformation during the process of elections without interfering with people's basic rights?
8. How effectively would you consider the actions of your country's electoral body towards the management of mis-/disinformation for a smooth and successful elections process?

### *Followed-up Questions*

1. On that part of information management, do you think, uh, I, uh, also should do something when it's come to, uh, you know, take an actual information on become huge bots and most important information, um, online information age. So, do you think they fish, you also consider [inaudible] elections?
2. Even at the expense of setting the country on a fire?
3. Uh, in particular, during an election in order to win one another like you said earlier that. You want to Do it by all means. I mean you've you come across such our misinformation on this information. So, did your political party officially take any steps to combat to fight it? Or how do they do it? Do they fight with misinformation again or try what do they do?
4. I have another. OK, same question, because it's not a cent in line with that because OK, if people have right to information which is normal and it is how it is, another part of the world that they don't think that information is paramount in democracy. And it's very important for our citizens. You have access to it, but when we talk about access now, we're now talking about how almost everyone you know are having the tools of media in. Our hands and different countries across the world are trying their best to also curb this because it's causing more problems not only to democracy and to you know. To society to every part of our life. And they've been trying their best to do this, that's why I'm asking that beyond writing

information deal as the government. Trying to see what they can do to cut these and these in order not to. You know to use it to cause more problems' cause series of media personnel and also alluded to that fact that this is causing issue in the society.

5. Media as of today is now beyond the traditional media. And for example, you know your party, NDC and NPP. They both have their own platforms, their own pages on social networks. On media, and you're free to carry. It out because. It is not the GNA that is monitoring your media platform. It is a platform, the media platforms. But it may not be categorised as a media. That's one you have your own platforms. Many other politicians have their own platforms a lot of impact when it comes to politics today and the so-called bloggers and the and the and the citizen journalists are one, and the influencers are one. Even informing people more you know; you know changing their minds and using those. That is another side where I'm like. Well, what this question is coming from that, what can the government do in the case of these, you know, the with the traditional one we know we're dealing with professionals. You're dealing with those; you know you can catch. What about those who contract?
6. Let's put it another way. What can any government do to copy the process up to the company for the misinformation and disinformation during the process of election?
7. Yeah, from another political party. Have you ever come across them and what action did you take?
8. Has it been effective?



## Media Representatives

### *Main Questions*

1. Rights to information, freedom of expression, and press freedom are key pillars of democracy. However, the rate at which mis-/disinformation are disrupting the process of election which is also a key part of democracy is becoming more alarming. How would you describe the threats to the sustenance of democracy in Ghana?
2. Alright, thanks a lot just to follow up on that about misinformation, fake news, or disinformation. How would you describe their threats to sustainable to substance of democracy in that?
3. Like you said, there's no doubt, and especially during the election there's no doubt of misinformation. Or disinformation is likely to be circulated during elections. How would you want stakeholders to manage the flow of messages from the active to the passive stakeholders?
4. The advancement of technology and media proliferation has paved way for numbers of our people in society, such as citizen journalists, online influencers, bloggers among others, to claim membership in the fourth estate during the process of election. How do you think these people can play a key role in information management for successful elections?
5. While the historical impacts of conspiracy theories have been well documented, we have not seen substantial researches on the impact of misinformation in Africa. As a member of the fourth estate, what do we need to bridge the

gap in Africa and save the continent from information pollution that is capable of leading to civil wars through elections outcomes?

6. During elections, media outlets have been accused of working for politicians more than setting an objective agenda as members of the fourth estate that will allow citizens to be well informed and guided them towards the right. Also, some existing studies reported that some mainstream media are also becoming susceptible to the spread of misinformation and disinformation, consciously or subconsciously during election. In terms of agenda settings on information management for successful elections, what would you say that the Ghanaian mainstream media got right and got wrong during the 2016 or 2020 elections?
7. Thanks a lot. Following on in the name of curbing the spread of misinformation or miss disinformation. Has the Government of Ghana come up with any policy or is there any existing law to mitigate the manners of or to combat it? If yes, how effective is it? And if not, why do you think they've not taken any?
8. Also, many countries across the world have been struggling with the necessary measures like we've been talking about. So not only in Ghana, not only in Nigeria, not so in different countries, have been struggling with the necessary measures to regulate the spread of misinformation and disinformation before, during and after the election. However, for those who have taken

some actions, they find themselves to be colliding with some pillars of democracy such as you know, freedom of expression, freedom of you know information. So, while they're trying to curb it, there also some of these policies are colliding against it, such as freedom of Information like I said, what are some of the actions you think the government can take to combat misinformation or disinformation during the process of election without interfering with people's basic rights?

9. This is the final one. How effectively will you consider the actions of Electoral Commission of Ghana towards the management of misinformation and disinformation for smooth and successful election. This question is just saying that, do you think Electoral Commission sees information as an integral part of an election, and how will you how effectively will you consider their action towards that?

### *Follow-up Questions*

1. How effective is it? When it comes to curbing or mitigating measures of misinformation and disinformation?
2. So, this in the in the case of the indicator of disinformation, right? Yes, OK, what about the case of this online stuff that you know that has proliferated everything? So, the Twitter, the Facebook and how people are using this here and there?
3. OK, and just to follow up on that about the media, how does the. Existing law regarding combating misinformation. The one that you mentioned from the Constitution. How does it or can it affect you as a member of the fourth estate? Positively or negatively? How is it?

4. And so, we are looking at beyond or if we realise that there's been colliding and this thing is seemingly kept on being more difficult because in the case of or for example, Germany, they've tried and still it collides with series of rights even in the USA. They are trying their best and still it still happens with most of European countries Near 7/8. But however, they still have some solutions so but the reason I'm asking this direct question is to ask from the context of Africa, from the context of Ghanaian. Like what can government do beyond even you know, trying to enforce fine, but beyond enforcement to make this thing go much easier, you know among the people like. That's What my question is.
5. OK for example, if they are empowered, what can they do like what do you think they would do with their departments?
6. So, in your opinion or from your own experience as a media practitioner, what would you say the Ghana media got right or they did wrong as entities during these two elections? Compare and contrast.
7. Many countries across the world have been struggling with the necessary measures to regulate the spread of mis-/disinformation before, during, and after the election. However, those who have taken action find them to be colliding with some pillars of democracy such as freedom of information, freedom of expression, or press freedom. What are some of the actions you think the government can take to combat mis-/disinformation during the process of elections without interfering with people's basic rights?
8. What do you think the Ghana media got right when it comes to the 2016 and 2020 elections? And what did they get wrong?
9. So, how do you see the threats of this? information disorder to the sustenance of democracy in the country? To what extent?
10. Having stated that the problem is on the society and having also accepted that they are part of it and the earlier we accept that they are there the better. What do you

think should be a way out in order to engage them or to incorporate them to really achieve a successful election?

11. How does this regulation or policy to combat misinformation affect you as a member of fourth estate, positively or negatively?
12. So, you mean the existing law on information regulation even before the popularity of misinformation and disinformation in Nigeria is enough to tackle these challenges of misinformation and disinformation?
13. Actually, we have the third question that is mainly about the role of media itself during election regarding the management of information which you just explained. But this is the second question that I asked, even though you've answered the media part, it's more talking about the other stakeholders beyond media, such as political parties, electoral commission, government or other stakeholders aside the media community.
14. As I said, is there any reason would you say that there are some irregularities? There are some things there that can affect the action or the work of the media and the people themselves.

### **Electoral Bodies' Representatives**

1. Elections and information hold a key part of the pillars of democracy. However, the rate at which mis-/disinformation are disrupting the process of election is alarming. To what extent do you feel concerned about the threats and how much can they affect the sustenance of democracy in Nigeria?
2. There is no doubt that mis-/disinformation is likely to be circulated during elections. How would you want the stakeholders to manage the flow of information in achieving successful elections and sustainable democracy?
3. As an officer of the Electoral Commission, what roles do you think the commission needs to play during elections regarding the management of information flow from the actors to the ordinary citizens?

4. The advancement of technology and media proliferation has paved the way for numbers of people in society, such as citizen journalists, online influencers, bloggers among others to claim membership in the Fourth Estate during the process of election. How do you think these people can play a key role in information management for successful elections? And what actions have the commission taken or planning to take in ensuring they comply with rules?
5. As the key leading management of the election process in Nigeria, have you ever got reports about or come across the usage of mis-/disinformation among the political parties during the process of elections 2015 and 2019? If yes, what action did you take to manage it as a commission?
6. In terms of information management for successful elections, what action would you say the Electoral Commission got right and wrong during the 2015 and 2019 elections?
7. How effectively would you consider your actions towards the management of mis-/disinformation for a smooth and successful elections process?

***Follow-up Question(s)***

1. It's a follow up visit for this particular question. Is the case where misinformation and disinformation are becoming something more harmful as those other things you've mentioned that could be found in languages and all this stuff, misinformation and disinformation are being used across the world. Intentional disinformation is intentionally. you know to. To rule out that information that are not true. To people in order for them to win election, which are in some cases for some responses from the electorate. Lots of them also alluded to the fact that misinformation can lead them to, you know, to light up a wrong leader that they do not have interesting. So that was the reason I asked. The quote this question goes in line with that, but that there is a plan on a managing fault in future or in the process.

### Appendix III

#### Content Categories in a Code Sheet

Link	F	G	D	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
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**Key:** *M*(Misinformation), *D* (Disinformation), *PP* (Political Party), *C*(Candidate), *MPP* (Member of Political Party), *NPO* (Non-Political Organisation), *CSO* (Civil Society Organisation), *EB* (Electoral Body), *V* (Voters), *SRD* (Social Relation Damage), *DL* (Demeaning Leadership), *SD* (Societal Damage)