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**THE MEDIATING ROLE OF SOCIAL MEDIA USAGE ON THE EFFECTIVENESS
OF CRISIS COMMUNICATION IN BUILDING PUBLIC TRUST DURING
NATIONAL EMERGENCIES: A COMPARATIVE APPROACH OF GHANA AND
GERMANY**

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ABSTRACT

This research examines the mediating effect of social media use on the association of crisis communication and trust in the public responding to national emergencies in Ghana and Germany. The question then is whether and how social media increases or reduces the efficacy of institutional messaging to build trust, especially when considering differences in sociopolitical contexts and digital infrastructure. Based on a quantitative, explanatory and comparative research design, 209 adult social media users (88.47% male; 10.92% female) from four selected major cities (Accra, Kumasi, Berlin, and Hamburg) were sampled. Variables such as social media exposure, engagement and exposure to crisis communication, trust in institutions were assessed using structured digital questionnaires. The analyses were performed in SPSS including mediator and moderator models through the PROCESS macro. Results demonstrate that crisis communication significantly predicts public trust, and that social media is not a significant mediator of this relationship. Country context differences (Ghana vs. Germany) do not moderate the mediation effect. Nevertheless, social media in Ghana appears to have a limited moderating effect on trust, pointing to situational differences in user communication and message understanding. The research proposes crisis communicators align their practices with platform specificity and reinforce digital trust.” As a second order observation, it questions the assumption of the universal effectiveness of social media on the life cycle of trust building in the public sphere, and argues in favor of context-sensitive digital communication frameworks in times of crisis.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The development of mass communication in Ghana and Germany offers divergent patterns, which have been influenced by specific cultural, political and technological developments. In Ghana pre-colonial and early post-independence information systems were essentially communal and oral. Information flow depended largely on “gong-gong beaters”—traditional town criers who communicated with metal gongs to pass along communal information (Asiedu, 2012). These were generally followed by community meetings at community centers or in religious centers that also acted as communication and announcement centers (Owusu-Ansah, 2015). This legacy fostered a great dependence on face-to-face trust and group ear as norms of communication. In recent years, co-current with the development of radio into the premier mass communication media in Ghana because of its widespread accessibility, the penetration of mobile phones in the 2000s and an increasing use of social media present democratic space for information sharing and civic conversation (Bayor et al., 2025; Ahiabenu et al., 2016).

German media history by way of contrast, follows a sorted and institutionalized chronology. The early spread of newspapers in the Enlightenment and the subsequent, late 1920s institutionalization of radio broadcasts in the Weimar Republic revealing the past of the Weimar Republic coup and dictatorship years (Peters, 2018). One of the European countries that reconstructed its media system in the post-World War II period around public broadcasting services like ARD and ZDF is Germany, where neutrality, responsibility and regulated communication patterns are stressed (Reinemann et al., 2020). Amid this evolution from traditional to digital media, Germany witnessed a slow, and sceptical adoption of social media among most of the over-65s generation relative to young people who easily took up the use of social media, substituting radio and television programming (Reisach, 2025). While possessing a stable and robust media environment, Germany has been combating the scourge of "fake

news" and institutional skepticism stemming from a digital disconnect and political polarization (Kaufhold et al., 2018; Van Dijck & Alinejad, 2020).

The introduction of social media has thus significantly altered the communication environment in both countries--but not necessarily in the same way. In Ghana, news, as well as crisis communication, are being disseminated through platforms social media (predominantly WhatsApp and Facebook), especially in remote rural areas with no access to mainstream media (Bayor et al., 2025). In Germany official channels for institutions and a more Twitter, YouTube and Telegram for citizens to discuss developments in crisis lead to concerns of the former losing control (Reuter et al., 2017; Masngut & Mohamad, 2021). Given the different contexts, a comparison of whether the use of social media moderates impacts on trust from crisis communication is required.

The disparities were further exposed by the COVID-19 pandemic. Media access is low in certain parts of Ghana, forcing governments and NGOs to rely on localized and mobile based communication, and using community volunteers and religious networks (Adebisi et al., 2021). In Germany, where communicative infrastructure was better and the government was the source of skepticism – in particular on social media – trust levels were less uniform and trust in institutions was lower at the peak of the crisis (Kaufhold et al., 2018; Reinemann et al., 2020). These positive and negative cases draw attention to a critical blind spot: the degree to which trust in the trust-effectiveness of these technologies for building trust in social media for emergencies is a culturally-qualified, technology-mediated, institutionally-shaped outcome.

Existing research offers fragmented findings. It has been proposed that civic dialogue is stimulated and institutional trust is engendered in the time of crises by platforms such as Twitter and Facebook (Aldamen & Abdallah, 2024; Mackay et al., 2021). Still others caution that the unmoderated environment of these tools facilitates misinformation and conspiracy theories, adding to the general public confusion about issues, especially when authority existed on contested institutional ground (Kaufhold, Valeriani, & Vezyridis, 2018; Masngut & Mohamad,

2021). Among other things, these contradictions highlight a critical need to better understand the extent to which the social media is a mediating variable, making crisis communication efforts work better or, alternatively, making them work worse, in a wide variety of contexts.

To address this gaps, this study is based on the example of two cases, namely Ghana and Germany as a case from the Global South, and the Global North, respectively. It provides an opportunity to investigate how variations in media infrastructure, governance, and public expectations affect the risk communication-public trust relationship. For Germany, institutionalized communication systems are an advantage, although surrounding them is eroded trust in institutions. Ghana conversely combines weak infrastructure with high community involvement and flexible use of the mobile technology (Bayor et al., 2025). These contrasting sets of models provide an excellent place from which to compare social media as a mediating force in the building of trust in diverse emergency contexts.

While extensive reports and studies exist on digital communication and trust, they analyse either administrative messaging, or they concentrate on single-country contexts, and rarely in connection to media studies, crisis response and trust theory in a comparative approach (Wukich, 2016; Moreno et al., 2023). This study also fills this void by combining both quantitative empirical research and theories from sociology, media theory and public administration. In addition to the theoretical significance, this also fills an immediate practical requirement. Governments, humanitarian agencies and civil society actors should need to design credible crisis communication strategies in a timely manner. These attempts for successful intervention depend on how precisely citizens interpret and trust digital messages – especially in the period of high emotions and uncertainties (Song & Lee, 2015; Williams et al., 2017). By examining the role of social media as an intermediary of the relationship between crisis communication and trust, this research not only develops theoretical insights, but also plays an important policy-relevant role in improving the effectiveness of digital crisis engagement.

Overall, this research is located at the intersection between history, policy and digital innovation. As such, it addresses a pressing question in today's networked world: How might social media be used, not simply for crisis messaging, but to build and maintain public trust at a time of national emergency? This is insightful, for there is abundant scope for 'interrogating' development initiatives across varied contexts that however have a limited comparative focus between two diverse settings; Ghana and Germany, to generate context-based specific insights with broader theoretical and practical importance.

1.2 Current state of research

Scholars increasingly investigate the relationship among social media usage and crisis communication as well as public trust since the last ten years while focusing on worldwide emergencies including pandemics and natural disasters alongside political turmoil. Studies demonstrate that social media platforms serve a vital function in distributing emergency information while providing instantaneous updates and facilitating two-way dialogue between official bodies and the public (Mackay et al., 2021; Reuter et al., 2017). Research by Van Dijck & Alinejad (2020) and Kaufhold et al. (2018) demonstrates that social media platforms operate as contested spaces where trust is both established and disputed. Scholars have produced extensive research about social media's role in crisis communication yet the examination of its effectiveness in building trust across socio-political environments such as Ghana and Germany continues to be insufficient.

Most studies investigating social media effectiveness in crisis situations emphasize information dissemination speed and reach. For instance, in Canada, Mackay et al. The research by Mackay et al. (2021) demonstrated that public health communications on Facebook throughout the COVID-19 pandemic displayed inconsistent structure and lacked both transparency and empathy which fostered public skepticism. Similarly, in Germany, Reuter et al. Reuter et al. found through their 2017 representative survey that although 45% of the population used social media during emergencies they discovered that most people remained worried about false

information which showed the fundamental struggle between usefulness and reliability of these platforms. Research findings demonstrate that message quality and platform trustworthiness serve as key determinants for public reception. Research on user interaction with social media platforms tends to focus on content analysis and not how this engagement affects institutional communication trust which presents a significant theoretical and empirical research gap.

The literature review reveals that research studies predominantly take place in Western regions particularly North America and Europe (Wukich, 2016; Song & Lee, 2015). Research from the Global South specifically Africa remains limited but recent findings from Ghana show important trends that merit additional study. For example, Bayor et al. Bayor and colleagues (2025) demonstrated that rural Ghana experienced increased trust through technology-delivered, audio health messages that received community approval during the COVID-19 pandemic. Aldamen and Abdallah (2024) observed that Twitter interactions by the Ghana Health Service demonstrated a transition from top-down to dialogic communication. Research demonstrates how communication methods that integrate culture and audience participation reveal promising results. Studies conducted in Africa mostly remain confined to individual country analysis and descriptive accounts without the necessary theoretical frameworks, which would enable cross-national comparisons.

Public trust research utilizes various disciplinary lenses including political science and communication studies as well as public health and sociology which produce beneficial insights that remain divided. Song and Lee (2015) maintain that transparency serves as a crucial mediator between how social media use affects trust in government. Van Dijck and Alinejad (2020) demonstrate that networked counter-narratives oppose scientific and institutional power which complicates the development of trust. While these perspectives are not mutually exclusive, they point to a deeper theoretical challenge: Researchers need to identify how social media platforms facilitate trust-building, sustain trust levels, or cause trust breakdowns during emergency situations. Scholars mainly examine trust as a dependent variable without providing

comprehensive theories on how social media activity and communication strategies jointly affect trust outcomes.

Research remains scarce that compares national contexts to understand their impact on crisis communication dynamics and public trust. The comparative study by Moreno et al. The 2023 research by Moreno et al. demonstrated that citizens' trust in government responses differed significantly across Italy, Spain, and the UK based on each country's governance history and media credibility and how severe their emergency measures appeared to be. The analysis did not include Germany and there are no existing studies that evaluate a high-income Western nation such as Germany alongside a lower-middle-income country like Ghana. The absence of comparative studies between Germany and Ghana stands out because their digital infrastructure, media freedom levels and public transparency expectations show significant differences (Reuter et al., 2017; Bayor et al., 2025).

Existing research focuses on citizen trust within traditional crisis communication but lacks comprehensive theoretical and empirical exploration of social media's mediating role in linking official communication to public trust. The mediation concept reveals that user behavior together with platform algorithms and message credibility alongside institutional reputation form an interactive process that is dynamic. Current communication models fail to capture the complexity of social media's role by reducing it to simple channels instead of recognizing its active influence on communication results (Kaufhold et al., 2018; Masngut & Mohamad, 2021).

Despite extensive research confirming the importance of social media in crisis communication contexts existing literature still displays several critical limitations. The literature demonstrates excessive focus on spreading messages without adequately developing trust-building mechanisms and shows regional bias in case studies while failing to clarify mediation theories and neglecting cross-cultural comparative research. The study aims to address current research limitations by exploring how social media use affects crisis communication effectiveness in

public trust building through case studies from Ghana and Germany. The research targets empirical contributions through data collection from underrepresented contexts and theoretical advancements by enhancing knowledge about social media's influence on institutional trust in national emergencies.

1.2.1 What Is Being Investigated: Institutions and Social Media Goals

The core investigation seeks to understand the effects of institutional crisis communication on public trust when it travels through social media channels. The research recognizes that institutional objectives differ between the two countries being studied. The main goal of German public institutions is to achieve clear and transparent messaging that follows established bureaucratic protocols to ensure compliance. In Ghana, because public trust in institutions is weaker traditional trust structures exist people look to culturally familiar messages supported by grassroots organizations for acceptance according to Bayor et al. (2025). The manner in which social media content is created and used demonstrates the institutional objectives of each country. German agencies deliver scheduled fact-based bulletins through Twitter and government applications that are primarily managed by official communication departments. On platforms, such as WhatsApp and Facebook in Ghana key roles are fulfilled by NGOs and religious leaders along with community influencers who deliver messages using narrative or emotive framing to enhance relatability. The research goal depends on understanding these diverse communication mechanisms.

1.2.2 Why It Is Being Investigated: National Objectives

The comparative analysis stems from evident demands in both policy formation and academic research. Ghana faces challenges in adding social media to official communication channels while Germany examines its government's credibility after handling COVID-19 information poorly. The two countries seek to develop communication strategies which will protect their populations and minimize panic during emergency situations. This research intends to produce

practical guidelines according to the governance priorities of both nations by enhancing public cooperation in Ghana through reliable intermediaries and improving transparency in Germany through institutional digital messaging reforms.

1.2.3 Final Reflection and Human Element

This study provides an important contribution by examining how everyday people understand institutional messages and actions. Does the general population perceive that their worries receive attention from institutions? Citizens place their trust on either the institutions that create the message or on the person who delivers it. The structured questionnaires will contain open-ended questions that enable participants to provide optional details about their reasons for trusting or distrusting crisis communications and their methods of evaluating source credibility. A mixed-method approach combining quantitative precision with qualitative understanding accepts that statistical analysis alone fails to fully represent human trust.

1.3 Research question

The core research question of this study is:

- “How does social media usage mediate the effectiveness of crisis communication in building public trust during national emergencies, and how do these dynamics differ between Ghana and Germany?”

The study investigates important research deficiencies by examining if social media influences public trust during crises and the mechanisms of this influence together with the specific conditions necessary. Many studies currently view social media as an unchanging instrument which overlooks its dynamic power to influence public perception toward institutional messages (Mackay et al., 2021; Van Dijck & Alinejad, 2020).

The research is guided by three main hypotheses:

- H1: Social media mediates the link between crisis communication and trust—greater engagement improves message effectiveness and public trust.

- H2: The nature of this mediation differs between Ghana and Germany due to contrasting digital landscapes and public trust levels.
- H3: Social media usage significantly moderates the relationship between crisis communication and public trust during national emergencies.

The three hypotheses underpinning this study (H1, H2, H3) are grounded in gaps identified in prior literature and the distinct sociopolitical environments of Ghana and Germany. These hypotheses are not arbitrarily selected; they respond to the call for empirical understanding of how social media functions as a mediating mechanism between crisis communication efforts and levels of public trust. For instance, existing literature such as that of Song and Lee (2015) and Mackay et al. (2021) suggest correlations but rarely test these relationships through mediational frameworks. This study aims to test these relationships quantitatively and comparatively, adding methodological robustness. Participants' responses will illuminate not just what levels of trust or engagement exist, but why they respond to certain messages more than others—capturing the human reasoning behind the trust-building process. In essence, the hypotheses are designed to test both behavioral patterns and cognitive responses, such as the public's perception of credibility, responsiveness, and cultural resonance of messages during crises.

The research employs a comparative method to fill theoretical and empirical research gaps while delivering conceptual understanding and practical policy guidance. The main objective of this research is to determine how strategic use of social media platforms can build trust in official crisis communication within various socio-political environments.

1.4 Methodology, (re)sources and materials

This study utilizes an explanatory research design with quantitative methods to explore how social media usage influences crisis communication effectiveness in building public trust during national emergencies through a comparative analysis of Ghana and Germany. The chosen research design provides systematic analysis capabilities that enable examination of

relationships and mediation effects between social media usage, crisis communication effectiveness, and public trust in two national settings.

Data collection in this research relies on a structured questionnaire survey, which aims to collect standardized information from a large respondent group across both countries. The chosen method excels because it supports comparative analysis and statistical evaluation of hypotheses (H1–H3) as well as investigates the mediating role of social media together with the impact of contextual factors such as message credibility and platform type and institutional transparency.

The questionnaire will consist of closed and open-ended questions and Likert-scale items to ensure reliability and ease of quantitative analysis. Key sections will cover:

- Demographic background
- Social media usage patterns during emergencies
- Perceptions of message quality (clarity, timeliness, empathy, credibility)
- Levels of trust in crisis communication
- Perceived transparency and responsiveness of government communication

The study will gather data from adult social media users living in both urban and semi-urban regions of Accra and Kumasi in Ghana and Berlin and Hamburg in Germany. Researchers selected these locations because they feature population diversity and internet access and play important roles in national communication strategies during recent emergencies such as COVID-19. A multi-stage sampling approach will be implemented to achieve proper representation among different age groups and educational backgrounds as well as various socioeconomic conditions.

Data will be analyzed using statistical software such as SPSS or STATA. Analytical techniques will include:

- Descriptive statistics (to understand trends),

- Multiple regression analysis (to test direct effects),
- Mediation analysis (using the PROCESS macro) to examine how social media usage mediates the relationship between crisis communication and trust.

All data will be primary and original. No secondary or previously published datasets will be used and no material will originate from preliminary work or previous thesis submissions. We will conduct pilot tests of survey instruments in both countries to verify their clarity and cultural relevance and to ensure linguistic accuracy through professional validation of German and Twi translations. We will gain access to participants by collaborating with universities and community organizations as well as utilizing digital platforms across both countries. The research project will secure ethical approval from institutional review boards located in Ghana and Germany and will obtain informed consent from every participant. This preliminary research design provides a systematic approach which clearly examines the mediating effect of social media on crisis communication and public trust while remaining feasible and robust. The structured questionnaire and explanatory methodology together create meaningful comparative insights which fill theoretical gaps while meeting practical requirements in this field.

1.4.1 How It Will Be Investigated: Expanded Methodological Rationale

To deepen the explanatory power of the study, more detailed elaboration on Hypotheses 1, 2, and 3 is warranted:

- H1 tests the mediating role of social media—whether it strengthens or weakens the link between official communication and trust.
- H2 evaluates contextual divergence, hypothesizing that Ghana and Germany experience fundamentally different mediation pathways due to technological, cultural, and institutional factors.

- H3 further specifies this by asserting that in Germany, institutional transparency is a stronger predictor of trust, while in Ghana, community alignment and cultural relatability are more impactful.

Although all participants use social media, the study segments them into demographic groups including government workers, teachers, NGO personnel, students and civil servants. Responses through segmentation will reflect diverse social knowledge and communicative expectations. The organization of social media crisis communication operations must be clearly identified. The responsibility for social media crisis communications in Germany usually falls to central governmental ministries and press agencies that employ skilled communication professionals. Ghana experiences a humanized communication approach where ordinary people such as teachers and community leaders serve as impactful informal messengers. The research aims to examine the impact of a messenger's institutional or social standing on public trust in their messages.

1.5 Organization of the Study

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter establishes the theoretical basis of the research. The review of literature operates on two levels. First, it reviews the existing literature critically to determine the significance, novelty, and the academic requirement that our work meets. Second, it offers a concept-driven explication for the scrutiny of primary determinants such as social media use, crisis communication tactics, and public trust. The organization of the chapter is arranged methodically for coherence and depth. The conceptual and theoretical frameworks, and the foundational models (e.g., Bandura's Social Cognitive Theory, Coombs' Situational Crisis Communication Theory, Mediating Role Theory as they pertain to digital platforms), are discussed in Section 2.2. Empirical literature on social media and public trust Section 2.3 discusses empirical studies on social media and public trust with regard to the media studies in developed and developing country settings (Germany and Ghana). The next section (Section 2.4) discusses the role of crisis communication approaches, particularly in relation to health and national emergencies, and Section 2.5 highlights comparative contributions from selected past cross-national studies. The final Section 2.6 synthesizes results and conclusions, identifies missing points and motivates conducting this comparative study. In this framework, the chapter provides a theoretical basis to better understand and to underpin the research hypotheses that will be tested in the next chapters.

2.2 Conceptual Clarifications and Theoretical Foundations

2.2.1 Defining Key Concepts

2.2.1.1 Public Trust

The trust of the public is a cornerstone of national emergency management, especially for institutions that depend on public compliance and cooperation. In crisis communication, trust influences public perceptions regarding the official version of events, the adoption of safety recommendations, faith in leadership arrangements (Zhou et al., 2022; Song & Lee, 2015). Researchers have claimed that public trust is a complex and multi-dimensional concept involving institutional trust, interpersonal trust, and digital trust (Zhang & Zhang, 2024).

First of all, with regard to institutional trust, this concept is the result of citizens' belief in formal agencies, such as governments, healthcare systems, and emergency management agencies. This particular type of trust takes on even greater relevance within the context of emergencies, where the credibility of official communication affects public behavior (Savoia et al., 2023). In Ghana, for instance, trust in institutions was greatly influenced by perceived responsiveness and transparency of health authorities during COVID-19 (Bayor et al., 2025). Meanwhile, trust in institutions appears to be more stable in Germany, based on long-held democratic norms and effective bureaucracies, but also at risk of fracturing through misinformation or what is seen as foot-dragging insurgency action (Mensah et al., 2023; Moreno et al., 2023).

Interpersonal trust is closely related to about trust in people we know or know of (e.g., our family members, friends, community leaders, and peers). In societies such as that of Ghana, where communalism, together with the influence of local authorities, are important arbitrators of perception, interpersonal trust tends to become the conduit through which messages from institutions become validated or dismissed (Dzisah, 2018; Bannor, et al., 2017). During pandemics, particularly in rural settings with limited media penetration, individuals tend to trust the voices of trusted individuals or peers more than institutional voices (Adebisi et al., 2021). For Germany, in contrast, the high level of literacy and digital penetration implies digital media and technologies existing in a context of interpersonal trust: formal institutional trust often tend to be perceived as more dynamic expression of-, or as informed by, informal trust in digital channels (Wang et al., 2022).

Interpersonal trust is proximately associated with trust attitudes in others we know or know of (e.g., family members, friends, community leaders, peers). In societies such as Ghana's where the central tenets of communalism and the relevance of traditional authorities are significant adjudicators of perception, trust within relationships becomes the conveyer of both affirming or subverting messages from institutions (Dzisah, 2018; Bannor, et al., 2017). During a pandemic, especially in the rural area with low media penetration, the patients believe the voice of trusted individuals or a peer over the institutional voice (Adebisi et al., 2021). For Germany in contrast, the high levels of trust in literacy and digital penetration means that digital media and technologies exist in an ecological of trust: formal institutional trust often tends to be seen as a more active expression of- or as informed by- informal trust felt in digital spheres.

Yet, digital trust is precarious as well. The information on social media is often considered untrustworthy due to the spread of conspiracy theories, political counts, and platform is not regulated (Zhang & Zhang, 2024; Masngut and Mohamad, 2021). Kaufhold et al. (2018) warn that the absence or delay of collective social media use by the government can open the floodgates for mis- and disinformation. This has been important in the Ghanaian context where lapses in official online communication strategies let competing informal narratives grow stronger (Bannor et al., 2017; Bayor et al., 2025).

Building on these definitions, the three-part model of public trust—and now the nuanced process whereby populations approach crisis messaging—emerges. The above dimensions of localism are exacerbated and in some cases contravened through institutions, communities with perception and online platforms with moderation respectively by social media (Reuter & Kaufhold, 2017; Mabillard et al., 2025).

What's more, digital and institutional trust often converge in a crisis. For instance, when the public is observing trust-building, open, and timely posts from authenticated government accounts on the social network, the confidence in both the institution and the channel is mutually strengthened (Song & Lee, 2015; Wukich, 2016). This supports the hypothesis of

Houston et al. that social media work during disasters is not just technical but profoundly relational—it operates on the basis of levels of trust people have in the message, the messenger, and the medium.

In summary, to assess the efficacy of crisis communication during a national emergency, one must consider public trust in institutional, interpersonal, and digital forms. Given that this paper focuses on comparing Ghana and Germany, it is important to examine the variation of these dimensions across contexts, and how they are (de)constructed with social media. These theoretic base will be used to analyze comparatively the dynamics of public trust in the crisis communication landscapes of the two countries in subsequent chapters.

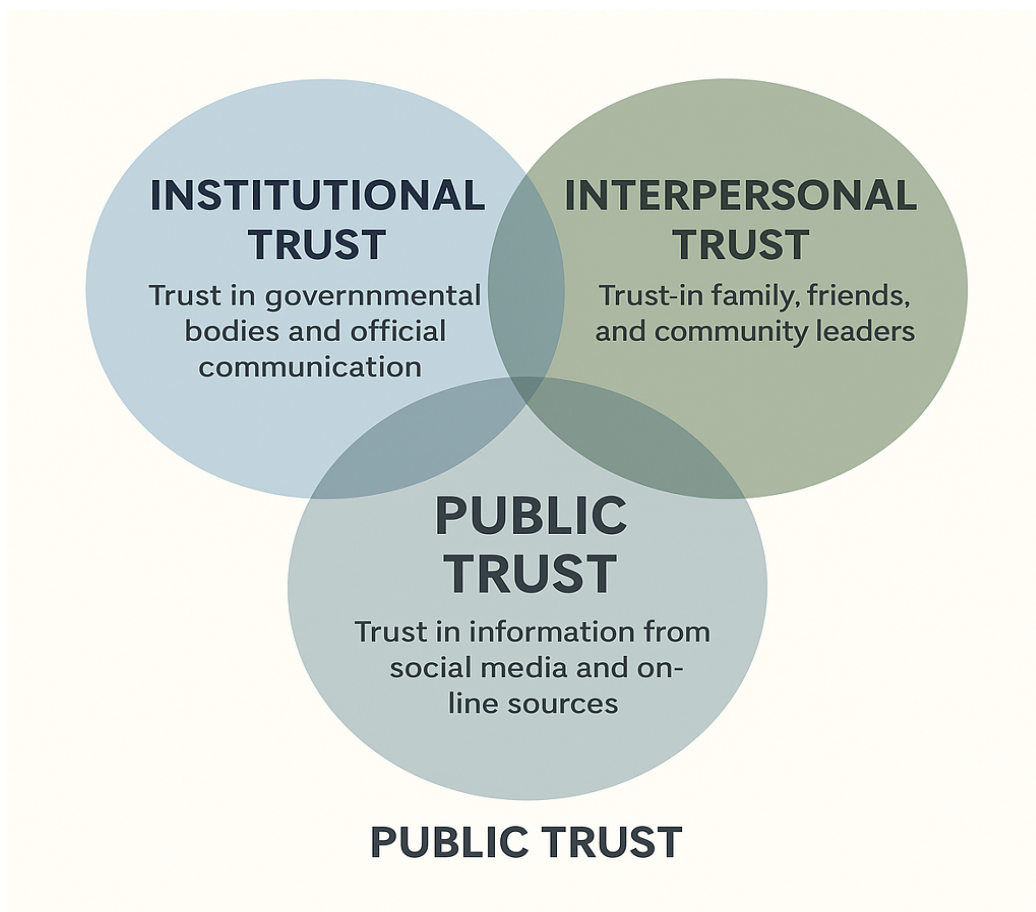


Figure 2.1: The Concept of Public Trust (Source: Author’s Own Construct, 2025)

2.2.1.2 Crisis Communication

Crisis communication, in the context of a national emergency, is fundamental to its function of informing, reassuring, and mobilizing the public. It is usually understood by two main models: the official crisis communication in a top-down and government-driven approach, and the participatory crisis communication that implies feedback and engagement of the people in media, above all on social media (Reuter et al., 2017; Houston et al., 2014). Understanding how these two modes are related is important for assessing how communication affects public trust in Ghana as well as in Germany, especially in a situation with a high level of uncertainty and an increasing need for constant information.

Formal crisis communication reflects a state-led approach to information diffusion and is typically marked by centralised, authoritative communication from government bodies, public health organisations and emergency authorities (Savoia et al., 2023). This model emphasizes control and consistency, to avoid misinformation and hysteria. For example, the German government used official digital media channels and television broadcasts to communicate regular information during the period of the COVID-19 pandemic, and such daily briefings helped in developing trust amid the population and institutional confidence (Mensah et al., 2023; Moreno et al., 2023). In Ghana, too, state institutions such as the Ghana Health Service, took the lead in communicating public health advisories, but their influence was sometimes constrained in rural areas by an infrastructural and digital divide (Bayor et al., 2025; Bannor et al., 2017).

But public communication is always a test and can be especially hard when transparency and speed are wanting. As Adebisi et al. (2021) reveal in their comparative examination of 13 African nations, top-down approaches may not meaningfully engage communities unless there is a parallel effort at localized culturally relevant dialogue. What is more, the image of bias or inconsistency disposition of political can destroy trust; it has been exemplified several times

when excessive time was taken by the government, or when political reasons inhibited clear action (Masngut & Mohamad, 2021; Zhang & Zhang, 2024).

In contrast, participatory crisis communication uses two-way communication with the help of interactive platforms –primarily social media – between organization and citizens. It is this approach that enables not only the dissemination of messages but listening, adaptation and public discourse (Aldamen & Abdallah, 2024). The model of participation also mirrors changes in communication ecosystems where citizens are not simply consumers of content, but also content creators, critics, and validators (Dzisah, 2018; Wang et al., 2022). Nowhere was this so the case as in Germany, where on social media platforms Twitter and Telegram public official(s) and citizens traded information in real time during the pandemic (Reuter et al., 2017).

Ghana’s participatory engagement also looked promising, for example, there were grass-root based social media campaigns together with influencer-led awareness during COVID-19 (Bayor et al., 2025; Aldamen & Abdallah, 2024). The participatory efforts proved to be most successful in closing the gaps that existed where official messages had little reach. But their effectiveness depended on digital skills, infrastructure, and trust in the platforms employed (Bannor et al., 2017).

Still, participatory communication is not risk free. It may be hyperstimulating misinformation, as well as generating “infodemics,” especially when false rumors travel faster than official rebuttals are able to travel (Mackay et al., 2021; Van Dijck & Alinejad, 2020). Kaufhold et al. (2018), not advocating rushed citizen-initiated communications in the absence of structure or coordination. Accordingly, the more agile an institution and the more capable it is of both modulating and responding to the flow of feedback in real time, the more effective its approach to participation tends to be (Lovari & Bowen, 2019).

A combination of top-down and bottom-up approaches implies that a hybrid approach might be optimal, in which state-driven news are circulated via online media which also facilitates public feedback and engagement (Song & Lee, 2015). This was reflected in the outbreak of the

COVID-19 in Ghana and Germany. Twitter-usage by health institutions in Ghana transformed from an information space into a dialogic arena with health professionals replying and correcting public misconceptions (Aldamen & Abdallah, 2024). In Germany, participatory crisis communication made citizens feel listened to and informed, consequently increasing trust in the institutions (Mensah et al.

In the end, good crisis communication today has to be multi-directional. It is not only the accurate and timely message of trustful source that can help to achieve this goal, the public voice should be actively involved in the creation and dissemination of the crisis-related content (Wukich, 2016; Zhou et al., 2022). While participatory platforms continue to condition public discourse, notably during crisis periods, the credibility of institutions increasingly resides in the ability of governments to adjust their communication strategies to these shifting digital geographies.

In summary, the comparative dynamics of official and participatory crisis communication in Ghana and Germany alike reveal similar if not virtually parallel patterns. In Germany, new participatory approaches have been made due to increasing public expectations for transparency and involvement, although institutional capacity in Germany has traditionally been on the side of the official, rather than the participatory approach. While the Ghana communication landscape has demonstrated nimbleness in leveraging participatory channels, particularly the informal and community based ones, there are challenges in terms of scale and verification. These approaches need to be drawn down into future crisis communication frameworks to maximise effectiveness and create enduring public trust (Reuter et al., 2017; Mabillard et al., 2025).

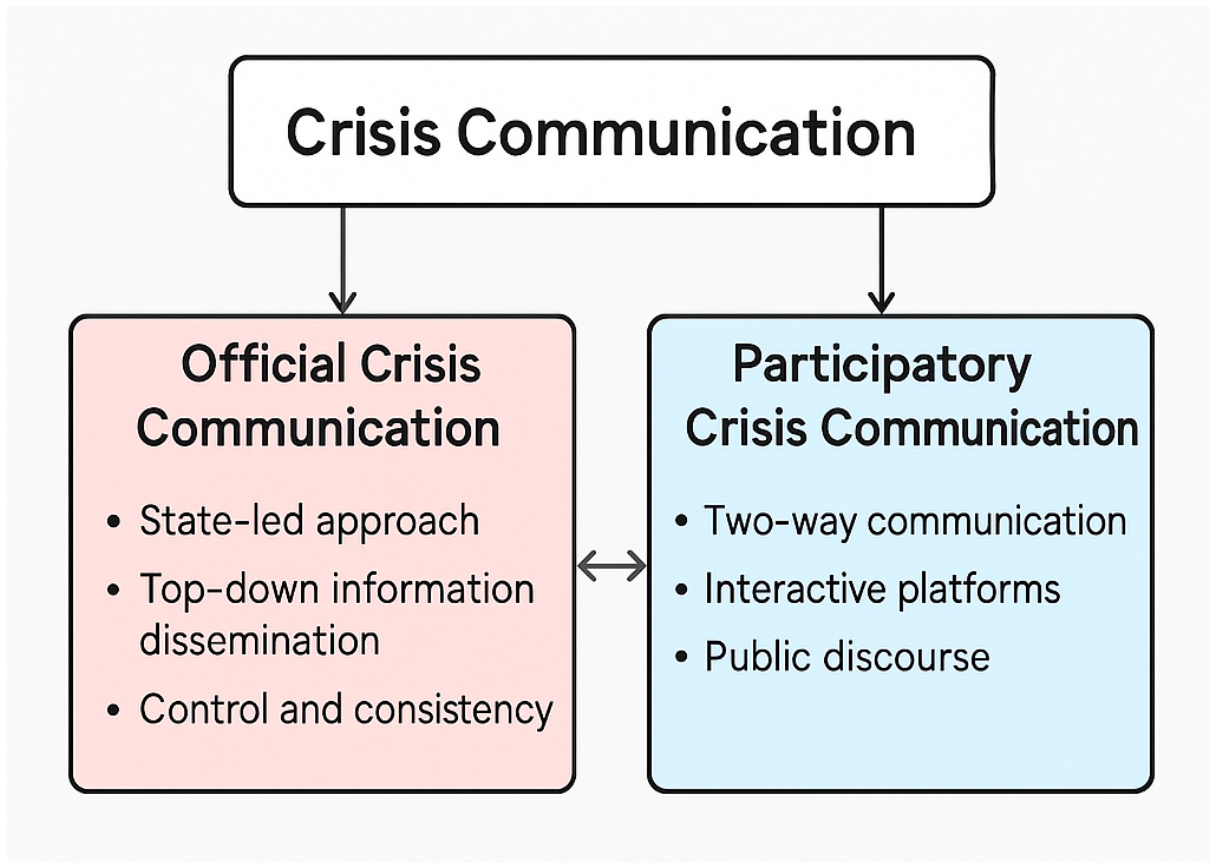


Figure 2.2: The Concept of Crisis Communication (Source: Author’s Own Construct, 2025)

2.2.1.3 Social Media Usage

Before social media came on the scene, the template for crisis response was quite different, particularly in terms of how one communicates and how information is disseminated, consumed and acted upon in times of national catastrophe. The variation in the type of platforms, their intensity of use, purpose of use, and types of interaction have collectively shaped the public sense of credibility and institutional responsiveness in Ghana and Germany. This is the focus of the present section, in order to understand how social media serves as an intermediary between the two sides - government and public - in their attempts to gain trust.

First to start, platform selection significantly affects the adequacy of crisis communication. In Ghana for example, the media used tends to be more cost-effective and accessible in terms of data use and coverage as Facebook and WhatsApp holds sway (Bannor et al., 2017). Twitter, though less prevalent in rural settings, served as a messaging tool during the COVID-19

pandemic (Aldamen & Abdallah, 2024); for example, the Ghana Health Service makes use of official channels for real-time updates on Twitter. Compared with that, in Germany a toolkit approach allowing to target different demographics and communication objectives is apparent in a variety of media like Twitter, Telegram, Facebook, often adapted by institutions (Reuter et al., 2017). This strategic platform positioning suggests that context-specific platform preference could potentially impact crisis messages' reach and reception (Houston et al., 2014).

In addition to the choice of the platform, the intensity of social media usage in the event of emergency is a major determinant for public participation and trust. Both in Ghana and Germany, usage has surged at crisis beginnings, notably during the first wave of the COVID-19 pandemic (Mackay et al., 2021). However, if official sources like German agencies provided regular updates to keep citizens informed, Ghanaian communication was often sporadic and reactive, especially in rural areas (Bayor et al., 2025). Such inconsistencies may erode public trust in institutional reliability when prolonged silence promotes the spread of misinformation (Masngut & Mohamad, 2021).

Functionally, social media's purpose in crisis communication has been multifarious, including distributing safety information, responding to public concerns, and refuting misinformation. In Ghana, public health agencies predominantly utilized social media for the distribution of one-way information with limited use of dialogic approaches, although there were some examples that showed dialogic engagements (Bannor et al., 2017, Aldamen & Abdallah, 2024). Germany over communicated in an omnidirectional manner to establish trust and compliance (Moreno et al., 2023). Although consistent with the results of Kaufhold et al. (2018) who stress the value of well-defined goals and objectives in increasing the strategic use of social media, particularly in the context of crises and panic where information overload and uncertainty are prevalent.

The interactivity is the other crucial dimension that affects participation and transparency of the public to a great extent. Interactivity—such as comment replies, real-time Q&A, polls, and

hashtags—facilitates two-way information exchange and helps promote participatory governance in times of crisis (Song & Lee, 2015). In Germany, institutions have been adopting this model more and more, reacting to citizen concerns and answering to ambiguities in a real-time fashion (Mensah et al., 2023). In Ghana, while interactivity was somewhat lower focusing primarily on replies, tweets of replies by the Ghana Health Service during the pandemic demonstrated increasing dialogic interaction (Aldamen & Abdallah, 2024). However, there are barriers; in under-resourced environments digital literacy and digital infrastructure can cripple meaningful engagement (Bayor et al., 2025).

Interactivity is also strongly associated with trust and perceptions of credibility. Research finds that individuals are more likely to trust institutional sources when they perceive they have been listened to and taken into account (Wang et al., 2022; Van Dijck & Alinejad, 2020). This is evidenced in an empirical study where governments pro-actively answering citizen questions online were considered to be more transparent and effective (Mackay et al., 2021; Moreno et al., 2023). Passive involvement or late engagement however breeds mistrust and leaves a void often filled by misinformation or non-officials sources (Zhang & Zhang, 2024).

It is also important to know that the social-political background affects how these dynamics are manifested in Ghana and Germany. Media and Democracy Social media complements or serves as a replacement for traditional media in Ghana, notwithstanding primarily among the youth and the urban population (Dzisah, 2018). But in the absence of national level harmonised social media strategies, there is a scalability challenge of these efforts (Bayor et al., 2025). In contrast to the UK, where DSA trust is low, and Facebook may serve to increase scepticism of DSA efforts (Jin & Liu, 2023), in Germany, where it is generally higher, social media could be a means to propagate official narratives and thus confidence, especially when combined with non-social media (Reuter & Kaufhold, 2017; Moreno et al., 2023).

Finally, as digital citizenship continues to develop, crisis communication strategies must respond to publics who are more participatory, and connected. Users are not just consumers of

information, they are the generators, amplifiers, and debunkers of content. Thus, social media usage should not merely be active and purposeful, it should be responsive and genuine in order to build credibility (Lovari & Bowen, 2019). In both nations, a consideration of aera and its level as well as platform job differentiation becomes useful since it is the workplace and platform that enables an institution to adapt their communication. (Wukich, 2016; Kaufhold et al., 2018).

In conclusion, the intensity and the specific features with which people use social media (the kind of channel, the frequency, the aim and interactivity), have serious effects on the effectiveness of crisis communication and on the establishment of public trust. By contrast, Germany presents a more formal and interactive articulate use of social media in disasters and Ghana is indicating the potential for innovative locally led mobile-based and grassroots strategies. As this project advances, these comparative findings will inform the examination of social media as a mediating technology in national crisis situations.

SOCIAL MEDIA USAGE DURING CRISES



PLATFORM

Preference for specific social media



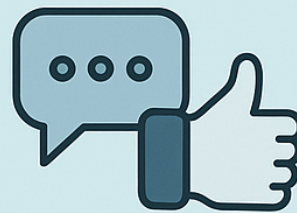
INTENSITY

Frequency of social media activity



PURPOSE

Dissemination of crisis information



INTERACTIVITY

Engagement with the public

Figure 2.3: Social Media Usage During Crises (Source: Author's Own Construct, 2025)

2.2.1.4 Institutional Transparency

Transparency of institutions (i.e., of intentions, actions, and outcomes) one the cornerstones of successful crisis communication. During times of national crisis, and health crises such as COVID-19 in particular, government, higher education and health bodies significantly contribute to public trust and dictate how people engage with official messages through the level of transparency they present. These institutional representatives are not just information sources, but also bearers of reassurance, relying on whose honesty the degree to which the public complies and cooperates depends (Song & Lee, 2015).

Institutional transparency—the “clarity, openness, and accountability with which institutions communicate their intentions, actions, and performance”—is a critical enabler for successful crisis communication. During national emergencies, and particularly health emergencies like COVID-19, openness from government, universities and health bodies goes a long way to seeing people trust their messages and to comply with recommended behaviours. These gatekeepers are not merely informants, but also conduits of confidence: the perceived sincerity of these actors can affect the public’s adherence to and participation in instructions for action (Song & Lee, 2015).

First, it is the government, as the subject of the crisis, to which the duty of providing timely and accurate information belongs. Transparency of government in Ghana and Germany was influencing public trust in crisis response measures in both environments. For example, in Germany, the Federal and state sector have conducted regular press releases and distributed verified data in platforms like Twitter and official websites, proselytizing institutional credibility and public cooperation (Moreno et al., 2023). Ghanaian government communication, on the other hand, was reactive, and vague at times, especially in rural areas with lower digital connectivity median age for those infected for Ghanaian and Spanish cases and cross-ratio of shape parameters between political stance was 8.71, meaning that the latter had relatively fewer older individuals compared to the former profile. (Bayor et al., 2025).

There is also comparative study carried out by Mensah et al. (2023) demonstrates that public perceptions of government transparency on social media can considerably increase the public’s willingness to believe information they encounter in crises. This is supported by Masngut & Mohamad (2021) who point out that the successful roll out of an authentic content may fail if the content presented is unclear or is less consistency between government channels with

regard to the content. Thus, policies that are seen as open tend to increase trust, lower misinformation and increase message effectiveness.

Beyond governments, the role of public health agencies like the Ghana Health Service and the Robert Koch Institute in Germany is also critical in institutional transparency. They are typically regarded with the highest amount of credibility during health crises on account of their expertise and perceived impartiality. According to Aldamen and Abdallah (2024), the Ghana Health Service's extensive use of Twitter during the COVID-19 period had enabled it to interact directly with citizens, countered rumors, and encouraged good health practices. But these attempts have sometimes been hampered by not co-coordinating with other governmental agencies, which resulted in fragmented communication (Bannor et al., 2017).

Universities have also been key institutional communicators during the pandemic. In Germany universities helped with transparency - open access research papers, webinars and expert based positions on academic social media accounts. They took and communicated measures to bridge the distinction between scientific authority and public knowledge (Van Dijck & Alinejad, 2020). In Ghana, institutions such as the University of Ghana also utilised their institutional reputation to provide public education and contribute to state narratives, albeit with little penetration beyond urban areas (Dzisah, 2018).

In addition to content dissemination, transparency of institutions is also associated with responsiveness and dialogic communication. Public queries and questions should be addressed by institutions; errors must be acknowledged, and misinformation should be corrected in the open to establish them as open and credible engines of information (Adebisi et al., 2021). In Germany for example, health authorities and crisis managers used interactive media such as live question and answer sessions and verified personnel to address citizen issues (Reuter et al., 2017). In Ghana, efforts have already been undertaken in the same direction, especially on the radio and platforms like WhatsApp, but maintaining those platforms was an issue, there were not that consistent (Bayor et al., 2025).

Also, research highlights the relationship between transparency and digital trust, especially in contexts filled with competing narratives. If information is presented in a coordinated, consistent fashion from more than one institution, it reassures that this is good-quality information from multiple sources, improving trust in the system on a global basis (Wukich, 2016; Zhang & Zhang, 2024). Instead, divided or politicized messaging can create confusion and feed skepticism, as has been seen in both countries at different times during the pandemic (Savoia et al., 2023).

When it comes to the public perception of transparency, it's not simply about the availability of information, it's also about its readability and motivation. As Song and Lee (2015) posit: 'citizens often see transparency as an action directly motivated by the institution – that is, giving openness implies that the institution is "acting" to give openness. In Germany, the high public trust in science and bureaucracy had a historically permissive effect on interpretation of government communication (Moreno et al., 2023), while in Ghana the historical tendency toward political polarization often influenced public interpretation of institutional messages. (Van Gyampo, 2017).

In fact, social media have dual buffering or exacerbating mechanisms for perceived transparency. First, it enables institutions to circumvent traditional media gatekeepers and communicate directly with the citizens (Reuter et al., 2017). In contrast, such platforms also feature misinformation and politicized narratives that, if not mitigated, stand to erode institutional authority (Mackay, Neergaard & Rode, 2021). Hence, transparency needs to include digital resilience—it cannot be divorced from the fact that transparency, consistency, and responsiveness on social media are now making or breaking traits of institutional credibility (Wang et al., 2022).

In summary, institutional transparency is a nuanced concept that is defined, in part, by governments, universities, and health bodies on multiple communication platforms. When it comes to crisis communication, particularly during national emergencies such as COVID-19,

transparency is integral to shaping public opinions and responses to official messaging. Although transparency in both Ghana and Germany is far from reality there are communication infrastructures, a political culture and a media environment that offer particular challenges and opportunities. Thereby, building confidence by transparent communication from institutions—particularly on social media—remains the key for the development of resilient and informed societies.

2.2.2 Theoretical Frameworks

2.2.2.1 Social Cognitive Theory

Social Cognitive Theory (SCT), as first conceived by Albert Bandura, has the virtue of an illuminating capacity to allow us to understand how individuals learn, make sense of, and incorporate information; this is especially helpful in contexts of uncertainty, as with national emergencies. Fundamentally, behavior was influenced by the internal and external environment through an interplay between self-efficacy and self-regulation mechanisms, personal factors, and the interacting system involved in the behavior (Abdullah, 2019). Media messages, particularly those on social media, are impinging environmental social stimuli and behavior models influencing public attitudes and behavior (8).

Significantly, Bandura pointed up observational learning: a phenomenon where people model or mimic the behavior of others, especially if they think that doing so will reward them or gain them social approval (Harinie, 2017). This is especially the case in the digital age in which end-users are bombarded with official announcements, responses from peers, and banter from the community on the likes of Twitter or Facebook. Take, for example, during the COVID-19 crisis, people's willingness to follow government guidelines was largely determined not just by what the government announced, but also by how their networks responded to that announcement. This would support the SCT tenet that behavior is determined as much by perceived norms as by formal rules.

Self efficacy is another key SCT construct, which is an individual's belief in their ability execute a particular behavior. Self-efficacy determines whether people take protective action, comply with public health guidelines, or interact with crisis updates online in emergencies (Schunk & Usher, 2019). Social media can support or disprove this belief. For example, the following factors can improve efficacy: continuous reinforcement, peer support, and clear instructions from faithful organizations. Misinformation or confusing messaging can instead promote acedia – a sense of powerlessness and disconnection, in particular among already vulnerable communities ranging from rural Ghana to German citizens who doubt digital technology.

Furthermore, the SCT's principle of reciprocal determinism—that the consumers of media are not simply passive recipients of its effects but also actively involved in its own realization—is consistent with the participatory nature of social media. Humans are not only consumers but distributors, commentators, and even counter-producers of crisis information. This shared meaning-making gives greater weight to media cues through their being placed in a social setting. Therefore, it is of great importance to know how media cues are perceived and magnified in the light of real time to evaluate crisis communication strategies in Ghana as well as in Germany (Abdullah, 2019).

In addition, SCT promotes a contextual view of communication, recognising that its acquisition is mediated by cultural, social and technological factors. In Ghana, for example, information cues are interpreted and hedged in a way that is influenced by a high level of social interaction and use of interpersonal networks (Harinie, 2017). In comparison, Germany's digital landscape is more individualist and techno-constructivist, factors that could also generate demands for a focus on source credibility and algorithmic filtering. Therefore, the same message can lead to different behavioral reactions in the two countries, which increases the merit of viewing a comparison.

Finally, Social Cognitive Theory offers a theoretical basis to examine the way in which those affected by crisis come to view, process and respond to crisis information shared via social media. Its emphasis on observational learning, self-efficacy, and situational interest offers an illuminating review of how trust may develop—or be diminished—via digital communication. In the wider scope of our research project, SCT helps to understand how citizens in Ghana and Germany react cognitively and socially to crisis-related information distributed through social media.

2.2.2.2 Situational Crisis Communication Theory

Situational Crisis Communication Theory (SCCT): SCCT, which is formulated by W. Timothy Coombs, provides a model for how organizations should communicate in regards to various extents of attributions of crises. SCCT suggests the central notion that the efficacy of crisis communication is determined not solely by the content of the messages, but also by the way in which the information is presented; here, the response strategy should reflect the crisis type and stakeholder attributions. Especially when one is assessing so-called national emergencies, the credibility of the government and its institutions is so much put on the line, underdetermined and over determined amidst the growing public outcry.

Critically, SCCT differentiates between three classes of crisis, victim (low responsibility), accident (low responsibility), and preventable (high responsibility) with each possessing unique communication strategies. For example, in a low-responsibility scenario, such as that concerned with the COVID-19 pandemic, destination management organizations (DMOs) such as VisitPortugal adopted accommodating approaches on social media, such as empathy and being transparent, which contributes to maintain tourists' commitment with the destination by preserving public trust towards tourism in a period of global uncertainty (Casal-Ribeiro et al., 2025). Likewise, how national governments react to pandemics or natural disasters in terms of how they frame the situation, i.e., as a victim or a responsible actor, can have a major impact on how the public perceives and trusts them.

Furthermore, SCCT highlights the importance of message framing in crisis narratives. As seen in the airline industry under operational disruptions, companies employing proactive message frames (e.g., corrective action, apology) were being viewed more favorably than those issuing defensive or vague responses (Ou & Wong, 2020). This is an especially important principle for Ghana and Germany's public institutions, where prompt and well-crafted social media responses have the potential to drive trust in institutions or, conversely, have the capacity to fuel skepticism in the public.

As important to consider is the inside-outside dimension of crisis communication, which has frequently been marginalized in favour of outside-in communication. Amid the COVID-19 pandemic, entities that had dynamic internal communication mechanisms such as regular communication and staff involvement were better poised to communicate a congruent and credible narrative to the public (Kim et al., 2023). This implies that institutional consistency - a strategic fit between internal and external communication - may provide an additional level of credibility and trust.

In addition, SCCT holds that social media magnifies the stakes and prospects in crisis communication. This could be seen in Germany, with its high level of digital competence, and with both institutional communication and critical awareness of it being well established, if SCCT - based strategies were not adapted to digital publics, the result would be damage to reputation. In contrast, in Ghana social media represents an important arena of participation: here, ordinary citizens are not simply recipients but active contributors to crisis narratives – suggesting that response strategies should be dialogic and culturally sensitive.

In this context, SCCT is both an acceptable framework to assess and develop crisis response to both the type of crisis and the expectations and emotions of digitally savvy publics. Adopting SCCT to Ghana and Germany for this study allows for a nuanced comparison of the extent to which strategic framing of messages on social media can moderate or amplify such organizational public trust-building efforts during crises.

2.2.2.3 Mediating Role Theory

The Mediating Role Theory offers itself as a helpful theoretical lense to examine how digital platforms act as mediators for building public trust in crisis communication. Unlike command and control sender-receiver models, this theory exposes the ways that such platforms as Twitter, Facebook and WhatsApp are not so much containers for messages but fundamentally shape how those messages are structured, filtered, reached and interpreted. Under national emergency situations, the character and composition of these platforms will condition public trust, engagement and behavioural response (Bodó, 2020).

Additionally, as Bodó (2020) explains, platforms serve as “technological trust mediators,” in other words they control the information that users have access to, as well as the perceived level of credibility of that information. Crisis communications messages are shaped by algorithms, interface design and platform policies (Bodó, 2020). In Ghana and in Germany, the visibility and virality of official updates is often shaped by how effectively these updates conform to the logic of a platform — the ideal of brevity on Twitter, the aesthetics of visual story telling on Instagram. Instead, platforms are both communication tools and trust intermediaries, intermediating the authority of institutions through technology.

In addition, digital platforms allow for dialogic communication, in which relations between institutions and citizens can be both "two-way" interactive. This interactive element reconceptualises the audience from passive consumers to co-constructors of meaning. Camilleri, (2021) by states that strategic dialogic communication on social media can help build relational trust and legitimacy, especially during crisis if managed well (Camilleri, 2021). For instance, Ghana’s health ministries that tapped into their citizens with comment replies and live sessions during COVID-19 experienced more engagement and trust than just broadcasting one-way. Its institutional formalism is likely necessary in Germany, where regulatory structures require more rather than less of it, for public trust in both transparency and digital responsiveness.

Second, the continuity and credibility of institutional communication is affected by the platforms involved. In the context of e-commerce, the perceived trust in platforms was positively related to continued use, which was mediated by consistent and context-sensitive communication strategies (Kim & Yum, 2024). Applied to the context of a crisis, platforms that are perpetual sources of trustworthy, timely new information from credible sources reinforces people's dependence on the platforms and minimises anxiety. In the way of doing so the digital interface itself becomes reassuring — in a product's case vital during prolonged crisis such as pandemic, national emergency etc.

Moreso, the comparative nature of this study shows that platform mediation is shaped in different ways in national cultural contexts. High mobile penetration and WhatsApp use in Ghana, for instance, mean peer-to-peer information sharing is more pronounced, whereas Germans more commonly access official websites and Twitter feeds for crisis information. This discrepancy highlights the need to view digital platforms not only as technical artefacts but also as socio-cultural ecosystems shaping the politics of trust building and emergency communication.

Finally, the Mediating Role Theory extends the theoretical base for understanding how SNS influences the effectiveness of crisis communication. As technological infrastructures as well as social spaces, these platforms mediate trust building between governments and citizens. It is the understanding of their intermediary role that makes cultural sensitive and strategically framed crisis messages more appropriate and context- specific—an essentiality for not only Ghana as a country but also Germany in the management of public trust during emergencies.

2.3 Comparative Media Landscapes: Ghana and Germany

Table 2.1 summarizes the discussion on the comparative media landscape between Ghana and Germany.

2.3.1 Media Infrastructure and Regulation

It is important to take into account both the media system in Ghana as well as in Germany, if we are to gauge how social media facilitates crisis communication effectiveness. The two countries each offer divergent templates of media systems development: one, Germany, highly regulated and technologically sophisticated, and the other, Ghana, where the media environment is increasingly digital yet unevenly spread.

First, the penetration of digital media illustrates a striking difference between the two countries. Digital connectivity is almost completely ubiquitous related to internet access in Germany, based on a solid broadband infrastructure and national efforts in the field of digital literacy (Reuter et al., 2017). The use of social media has infiltrated everyday life, from Twitter and Facebook being heavily used by government sectors for real-time crisis communication (Mabillard et al., 2025). However, in Ghana, mobile penetration is high, but urban and rural digital divide persist. (2017 – which has influenced community engagements during the COVID-19 pandemic) describe WhatsApp and Facebook as the most popular social networking sites because they have a low data cost and are easily accessible, but infrastructure shortages persist in rural areas and these undermine the reach and speed of official messaging during a crisis (Adebisi et al., 2021).

But beyond the infrastructure, trust in media – traditional and new – varies widely along demographic and geographic lines. Older generations in Germany have a higher-usage of public broadcasters and print news, which they think of as reliable, while the youngest generally opt for digital media, in many cases with suspicion when it comes to misinformation (Moreno et al., 2023). In Ghana, access to social media is growing among all age groups, especially for news about politics and health, but trust is weak and often touched by religious or community links (Aldamen & Abdallah, 2024). For example, in COVID-19, mixed messages from authorities completely eroded trust in the Ghanaian youth, causing them to seek

information based on peer network messages transmitted through WhatsApp, which were not always factual ones (Dzogbenuku, 2018).

Media ownership and governance, involved in public trust and freedom of crisis communication, should also be considered. Media ownership in Germany is very diverse and regulated, which prohibits monopolies and guarantees independent and pluralistic journalism. The existence of state-funded public service broadcasters such as ARD and ZDF meanwhile offers a solid basis for reliable information distribution in times of emergency (Kaufhold et al., 2018). Regulations such as the German Interstate Media Treaty, impede standards that would improve institutional transparency and accountability. In contrast, the Ghana media system although nominally free from constitutional provisions (Van Gyampo, 2017) a cocktail of private ownership, partisan ties and weak state capacity to regulate misinformation effectively characterise the sector. While independent media are powerful, their variable levels of professionalism and political leaning may at times obscure efforts to communicate clearly and apolitically (in times of crisis) (Bannor et al., 2017).

Moreover, platform governance is crucial for the adaptation of media infrastructures to emergencies. In Germany, health organizations work jointly with digital platforms to tag false information while promoting visibility of accurate content, which has been effective in diminishing vaccine concerns in the context of the COVID-19 pandemic (Zhou et al., 2022). In Ghana, such engagements are at embryonic stage, creating a gap, which digital rumors freely use during emergencies (Mensah et al., 2023). Thus, it appears that both regulatory maturity, whether nationally for governing the media or inter-platform cooperation, plays a determinant role in the successfulness of the social medium as a vehicle of crisis communication.

To sum up, the comparison of the media landscapes in Ghana and Germany illustrate that structures of infrastructure, patterns of trust and forms of governance intersect to form crisis communication effectiveness. Both countries may use social media, but German institutionalized oversight and technological edge leaves it better equipped for coordinated and

credible communication. Ghana, by contrast, offers a glimpse at what community-led, mobile-first engagement can look like where digital infrastructure and regulation are not uniform.

2.3.2 Actor Analysis and Stakeholder Power

A review of who the stakeholders are that drive, shape use and profit from social media use in times of national emergencies in Ghana and Germany will be discussed in order to measure power dynamics in this field. These range from state actors, civil society agents, and influencers to private tech companies (like Meta and X/Twitter), and the general public. They each contribute differently to the proliferation of the crisis communication domain in their home countries. First, in Ghana, government agencies, including ministries of information and the Ghana Health Service (GHS) for example, have leveraged social media platforms, and leading among them, Facebook and WhatsApp, during crisis as a strategic information channel for dispensing emergency information in response to outbreaks like the COVID-19 (Adebisi et al. However, even while the state is a key actor in message production, it does not have the infrastructural capacity for sustained interactive conversations with citizens in these spaces. As a result, it has allowed civil society institutions, community leaders and the like to fill the void in timely communication and clarification during emergencies (Bannor et al., 2017). Influencers, such as religious leaders and celebrities, are particularly influential in Ghana, which has large followings and cultural clout (Aldamen & Abdallah, 2024).

Instead, in Germany, media use is rather organized and regulated whereby institutional actors, like the Robert Koch Institute and federal ministry authorities, are the key players in shaping Digital Crisis Communication via Twitter/X, YouTube, and official sites (Reuter et al., 2017). Such entities enjoy strong institutional trust, and tend to work with tech platforms to decrease misinformation, an aspect that is less common in Ghana (Moreno et al., 2023). In addition,

crisis communication in Germany is also part of a larger public service broadcasting framework and legal responsibility infrastructure where control is being centralized while the reliability of messaging is being strengthened (Kaufhold et al., 2018).

Also, we cannot underestimate the role of the social media platforms themselves — Meta (Facebook, WhatsApp) X (née Twitter) etc. Through both countries, this control of algorithmic visibility of and the monetization of user attention to content is exercised by transnational corporations. However, their local engagement differs. In Ghana, platforms are largely commercialized and profit-oriented as they do not conform fully to a regulated industry with the attendant loose-end of the dissemination of both accurate and false information (Mensah et al., 2023). “Over in Germany, collaboration with authorities — especially during times of crisis — is codified further, including in content moderation agreements or cooperation with fact-checkers (Zhou et al., 2022).

For instance, civil society organizations have played powerful intermediary roles in both cases, albeit with stress on different areas. In Ghana, social media is employed by NGOs and advocacy groups to facilitate communication between marginalised communities and the state, particularly in rural and less-connected locations (Bayor et al., 2025). In Germany, on the other hand, CSOs tend to operate as a watchdog of policy and a policy influencer as regards the protection of digital rights and the ethical use of crisis data (Torpan et al., 2024).

Crucially, the official messages are reinforced with digital influencers in both countries affecting public views — but with contradicting results. In Ghana, the level of trust reposed in influencers is even higher than that reposed in governmental institutions (Dzisah, 2018), making this group of people very powerful for influencing both perception and public action. The impact of influencers,” he said, “will be blunted by media literacy campaigns and more stringent content vetting in times of crises in Germany (Mabillard et al., 2025).

In the final analysis, though both Ghana and Germany exploit similar social media platforms, it is structurally different in terms of the spread of control or influence amongst actors. Ghana

is a country with a relatively fragmented, decentralized, and informalized media system through which non-state actors can wield significant influence. In contrast, Germany's model enforces centralized institutional authority and locates digital communication within potent regulatory and trust structures. And these are the dynamics that are key to understanding how trust gets built — or eroded — in national emergencies.

2.3.3 Free vs. Regulated Digital Environments

One key aspect of the analysis of the comparative media system of Ghana and Germany is on the level of regulation and the digital media landscape governance system. These variances have direct implications on how crisis communication is framed, perceived and retained by the public during national crises.

For starters, Germany's digital ecosystem is heavily regulated, subjected to institutional oversight, national media laws and standards of public accountability. Traditional and digital media in Germany must adhere to the media laws, which are binding in terms of law enforcement structures and responsibility. This involves the concept that sources can and must be named and the sender should be responsible, this principle that has also been transported into digital space within the scope of Germany's Network Enforcement Act (NetzDG) concerning the deletion of unwanted content. As a consequence, crisis communication issued by public authorities – e.g. government agencies such as the Robert Koch Institute or federal ministries – are being curated and thereby published through reliable, legally liable channels (Reuter et al., 2017) providing for a comparatively high need of information quality and public trust especially during a crisis situation (Moreno et al., 2023).

Ghana, on the other hand, appears more informal, fragmented, and community-based, without the well developed legal frame work of Germany. The state provides some relief with the spread of information, particularly during the COVID-19 crisis where there are agencies such as the Ghana Health Service but there is little media accountability and Facebook and WhatsApp are the predominate means of communication with no national level control

(Aldamen & Abdallah, 2024). Therefore, there's a blurred line of the circle of enforceable responsibility in the digital sphere in Ghana. In this kind of unchallenged spaces, the source, the interests and the responsibilities are not clear, and the "news" spread very fast as well as the fake news. This pattern was especially pronounced in rural Ghana, where technology-based messaging encountered difficulties related to misinformation and inequalities of access (Bayor et al., 2025).

A third major difference is in participation and expression in crisis discourse. Germany Legal norms and institutional media literacy efforts moderate user engagement limiting the influence of emotional misinformation (Kaufhold et al., 2018). In contrast, Ghana's online public sphere is informed through the use of informal networks of influencers, religious leaders, and civil society partners who may not have formal communication training, but are important trusted intermediaries between state communication and citizens (Dzisah 2018).

In Ghana, this has resulted in instances where viral disinformation, occasionally sponsored by politically or culturally interested parties, threatens to outpace government crisis communication, hindering attempts to establish and maintain public trust (Mensah et al., 2023). By contrast, Germany's more centralized, rule-bound system contains such disruptions, but by no means eliminates them — particularly since fringe groups still use digital platforms to promote misinformation (Van Dijck & Alinejad, 2020).

Overall, the juxtaposition between Germany's more formal digital environment and Ghana's more informal, community-regulated one provides a window onto deeper structural variation in institutional trust, platform governance, and ability to manage digital risk in crisis. Germany enjoys legal responsibility and editorial curation, whereas in Ghana, the system more heavily depends on interpersonal trust and localized authority figures to fill in the blanks left by institutions. These distinctions have implications for how social media influence crisis communication and public trust in each national situation.

Table 2.1: Comparative Media Landscapes: Ghana and Germany

Dimension	Aspect	Ghana	Germany
Media Infrastructure & Regulation	Digital Connectivity & Access	High mobile penetration; urban-rural divide persists; reliance on WhatsApp & Facebook	Near-universal broadband; institutionalized media infrastructure
	Media Trust Patterns	Trust mediated by community ties; low trust in official sources, especially among youth	High trust in public broadcasters among elderly; youth wary of digital disinformation
	Ownership & Governance	Partisan ownership; weak regulation; inconsistent professionalism	Diverse and regulated; strong public service media (ARD, ZDF)
	Crisis Communication Platforms	WhatsApp, Facebook, community centers	Twitter/X, YouTube, institutional portals
	Platform Regulation & Governance	Informal; limited institutional engagement; high misinformation	Strong inter-platform collaboration; proactive misinformation control
Actor Analysis & Stakeholder Power	Key Stakeholders	State, CSOs, influencers, tech	Institutional actors (e.g. RKI), media

		platforms, general public	authorities, tech platforms
	Civil Society Role	Bridge gaps in state communication, especially in rural areas	Policy watchdogs and digital rights advocates
	Influencers' Impact	High impact; more trusted than government by some groups	Moderated by institutional literacy campaigns
	Platform Governance Collaboration	Limited collaboration with platforms; weak enforcement	Formalized partnerships with platforms and fact-checkers
Free vs. Regulated Digital Environments	Legal Framework & Accountability	Weak; fragmented; lacks a comprehensive enforcement framework	Strong regulatory systems including NetzDG
	Crisis Messaging Channels	WhatsApp and Facebook dominate with minimal regulation	Institutional websites and regulated social media
	Public Participation	Decentralized, influencer-driven engagement	Legally moderated discourse; limits extremism

	Disinformation Management	High; driven by emotion and informal networks; frequent misinformation	Controlled but not immune to fringe misinformation
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2.4 Crisis Communication and Trust during Emergencies

2.4.1 Empirical Studies Globally

Empirical evidence from a variety of countries around the world – including, for instance, Canada, Germany, China, and the Netherlands – demonstrates the importance of popular trust in official communication by institutions in managing the public sphere during national emergencies. Although approaches to communication vary according to technology and culture reliance is placed on trust as a factor that is independent of place and time to determine whether or not a message is effective.

For one, research from Germany and across Europe has found that the degree to which individuals trust their government health officials and media outlets directly correlates with their willingness to follow public health guidelines in times of crisis. For instance, Moreno et al. (2023) found that European citizens who actively searched for health information in official sources during COVID-19 evidence higher trust and better crisis understanding in the case of countries with transparent messaging infrastructures (Moreno et al., 2023). Likewise, Reuter et al. (2017) stressed the need for pre-established communication pathways and platform regulation that reduced misunderstandings and strengthened trust in how Germany’s emergency response would be carried out. (Reuter et al., 2017).

In China, confidence in official communications during health crises has been found to depend critically on perceived transparency of information. According to Wang et al. (2022) find that

Chinese users of mobile social media are more likely to engage in preventive practices if they feel that official information is clear, timely and corresponds to the situation on the ground (Wang et al., 2022). But the study also underscores a dual challenge: It finds that while digital tools can extend the reach of reliable information, they can also make it easier for disinformation to circulate rapidly, particularly in emotionally charged settings. This tension means crisis communicators must dose their attentiveness to message clarity against the feedback loop from a fickle public.

In a similar vein, Van Dijck and Alinejad (2020) focused on public trust in scientific expertise as it shaped discourse about COVID-19 on social media platforms in the Netherlands. They discovered that official (institutional) voices were in many cases contradicted by citizens who trusted the narratives of their myriad of peers more than they did the “facts” presented due to the disparity in incompatibility or the technicality of the institutional message (Van Dijck & Alinejad, 2020). This observation implies that in tightly-connected society’s message valence and social resonance can be as significant as truthfulness.

Similarly, Canadian investigations have emphasized how public perception could be shaped through the social media in the early stages of the pandemic. Mackay et al. (2021) studied public health announcements and news media on social platforms, and found that content quality and public sentiment highly correlate with each other. Critically, trust decreased when users found messages repetitive, full of technical buzzwords, or emotionally distant (Mackay et al., 2021). This calls for emotionally intelligent reaching out that speaks to an audience under stress.

Also, trust in institutions is not an end state, but changes over time as a result of communication behavior. For instance, Savoia et al. (2023) assessed the leadership and communication strategies used by government officials across a number of countries and demonstrated that early, regular, and empathetic communication influenced the public’s penchant to comply with public health instruction (Savoia et al., 2023). These results are consistent with Song and Lee

(2015) who also found that perceived government transparency via social media boosts citizens' degrees of trust in institutions (Song & Lee, 2015).

Yet trust during crises appears to be heavily dependent on the source of media. Zhang and Zhang (2024) reported the difference between different media type consisted in that the traditional media was trusted more for being under the direction of editor, while the information delivered via digital media leads to more doubt for the source remained to be decided due the user-generated nature of it (Zhang & Zhang, 2024). This dichotomy becomes particularly acute when official crisis communication is slow or conflicting.

To sum up, the empirical evidence from Canada, Germany, China, and the Netherlands converge to suggest that public trust depends on clarity, transparency, affect, and channel credibility. As this study compares Ghana to Germany, it is important to understand that these universal findings act as both a standard, and a cautionary tale: digital amplification does not guarantee trust on its own. Instead, trust needs to be developed strategically through planned, clear, and empathetic communication campaigns.

2.4.2 Empirical Studies in Africa

In Ghana, DM was formed heavily by informal networks, digital platforms, and culturally rooted trust actors that make up crisis communication. Unlike most Western environments where institutional media are dominant, in Ghana, crisis messaging ecology involves interpersonal influence, mobile communications and community engagement especially during national crisis occasions like COVID-19 pandemic.

For a start, WhatsApp had become a major platform for spreading public health messages in Ghana, particularly among rural and poor populations. Adebisi et al. (2021) found that information was spread quickly using WhatsApp as the message app is widely employed, its data cost is moderate and high for low end smart mobiles (Adebisi et al., 2021). Similarly,

Bayor et al. (2025) noted that WhatsApp had not only been efficient for the delivery of messages, it had also facilitated two-way communication - allowing the receivers of the information to ask questions and feel more empowered to give local feedback – a crucial aspect when building trust in a rural setting (Bayor et al., 2025).

Local leaders such as pastors, teachers and traditional authorities, moreover, were powerful mediators of public interpretation of crisis information. These actors tended to function as ‘trust anchors’ that legitimized or reconceptualized official health messages to make them reflective of local logics. Bannor et al. (2017) found that community leaders were more than twice as accessible and credible, especially in historical contexts of distrust of state institutions (Bannor et al., 2017) protective equipment in churches, retail kiosks, or free-standing structures. Aldamen and Abdallah (2024) also discovered that these informal agents frequently played the role of amplifiers of organizations and health institutions’ messages on Twitter/X and WhatsApp and were therefore mediators in the chain of public trust (Aldamen & Abdallah, 2024).

In Ghana, also, NGOs used the nimbleness of digital media to spark locally tailored crisis communications campaigns. These were often accompanied by visual and audio recordings in local dialects, so even non-literate users could make use of them. Dzisah (2018) pointed out that non-government organizations would use Facebook and WhatsApp to share electoral and health information to boost democratic participation and public trust during crucial times based on solidarity (Dzisah, 2018). Importantly, the participation of these civil society players delivered a bottom-up dimension to top-down Governmental initiatives.

In spite of these capabilities, the digital communication environment in the country also has major weaknesses. The lack of rigorous mining and examination of content in platforms like WhatsApp results in rapid dissemination of unverified stories. However, Kaufhold et al. (2018) suggest that people can be prepared for these through user education and pre-crisis

preparedness exercise focusing on teaching media literacy and trusted sources (Kaufhold et al., 2018). And the government's lack of a strong digital presence during early emergency stages has occasionally eroded trust, leading to information vacuums that are filled with unverified or contradictory accounts.

In short, Ghana's experiences illustrate the importance of culturally embedded and digitally mediated communication platforms in engendering public confidence in times of crisis. While Ghana's model varies from more institutionalized media systems, it shows how decentralized communication — based on local influencers and accessible platforms like WhatsApp — can be a boon and a threat. Therefore, including these types of knowledge in comparative studies will further our understanding of how social media mediates trust construction in various national contexts.

2.4.3 Social Media's Dual Role: Trust Amplifier or Distractor?

The rapidly growing status of social media in crisis communication creates a paradox: it is both a key multiplier of public trust and a potential generator of confusion, disinformation, and emotional manipulation. This is dualism laid bare in national crises where transparent, timely communication is required for the public to cooperate and trust in the legitimacy of institutions at the same time.

On the other hand, social media have been invaluable in the rapid distribution of information as the crises unfolded. Moreover, through the current COVID-19 pandemic, social media engagement tools such as twitter and WhatsApp allowed instant information exchange and public health warning dissemination in various groups people in high/low settings (Aldamen & Abdallah, 2024). In Ghana, WhatsApp campaigns from local health officials and NGOs successfully raised vaccine awareness in rural areas, suggesting that the interactivity of social media can increase message uptake and build trust (Bayor et al., 2025). Similarly, research in China shows that clear social media messaging was highly correlated to increased use and following of public health orders (Wang et al., 2022).

And yet, for all its advantages, the distributed nature of digital networks means we get fake news, misinformation, and politically skewed ‘news’ in spades. On the one hand, according to Reuter and Kaufhold (2017), the lack of platform accountability and the velocity at which unprocessed information spreads in times of crisis might detract from institutionalised communication (Reuter & Kaufhold, 2017). This is particularly concerning in countries with less regulated digital space, for example, in Ghana, where disinformation could potentially replace inconsistent government messages (Dzisah, 2018).

Furthermore, digital media enables to replace rational argumentation by emotively appealing story lines. With the advent of “do-it-yourself politics” and “outrage industries,” journalists and politicians and other public figures and public influencers are incentivized to personalize, emotionalize (in the sense that they are often fear-mongering or anger-mongering), and otherwise exaggerate a crisis in the interest of maximizing engagement. This can be divisive for the public and undermine trust in official institutions — especially when diplomatic or health messaging become embroiled in political debates.

Moreover, public engagement on these platforms, so democratic in principle, tends to be emotionally charged and easily hijacked by trolls or hidden entities. According to Mackay et al. (2021) information ecosystem imbalance during crises, and fact-based messages manoeuvring during COVID-19 Unlike previous communicative environments, emotionally salient posts may gain more traction, distorting the information ecosystem (Mackay et al., 2021). That imbalance confronts public agencies that want to maintain their authority and credibility in a vibrant digital discourse.

This is the reason why, even though properly used with integrity and openness, social media can in fact enhance institutional trust, its irresponsible misuse is a comparable threat to sensationalism, crisis mongering and ill-founded theories that would draw attention away from

the main points. This twin role makes platform governance a very crucial matter. Kaufhold et al. (2018) suggest the need for communicating crises in a structured manner and the need for digital literacy programs in order to decrease the impact of false information and emotional manipulation (Kaufhold et al., 2018).

In sum, social media is a trust amplifier and a potential distraction in crisis communications. Its strengths are its speed and accessibility; its weaknesses are a lack of regulation, emotional volatility and the primacy of story over reality. For nations like Ghana and for Germany, it is the recognition of this duality which is important when it comes to locally sensitive and platform-specific strategies in terms of strengthening social trust or defending against misinformation and manipulation.

2.5 Research Gaps Identified

In spite of the increasing literature on crisis communication and public trust, considerable gaps in literature are evident— more so in terms of cross-national comparison between the Global North and the Global South. While there are several studies that examine the use of social media for emergency communication on country level cases (Bannor et al., 2017 and Kaufhold et al., 2018), very few have made more direct cross-national comparisons. This limitation curtails our comprehension as to how socioeconomic, political, technical and cultural particularities influence the validity of disaster communications and their relationship with public confidence.

Furthermore, there is a limited attention which is paid to those who are actually organizing or intermediating the digital trust during emergencies. To date, much of the literature has focused on the ratification of the platform and the reception of the message but has not considered the influence of institutional versus personal forces in building trust around the platform. For example, in the context of Ghana's COVID-19 campaigns, pastors, local influencers, and NGOs were identified as critical actors (Bayor et al., 2025), which are comparable to actor dynamics in Germany, such as those of scientific institutions or government crisis units,

however, this is frequently addressed on a stand-alone basis rather than in a comparative perception (Savoia et al., 2023). This is an important gap, because the credibility and trustworthiness of messengers can have considerable impact on the uptake and outcome of messaging. (Mensah et al., 2023).

Moreover, it is not yet clear how different media structures (the algorithmic news feed, publishing institution, or peer-to-peer channel) influence the interplay of such emotional and rational trust-building processes. Disinformation is particularly prevalent in crisis discourse on platforms such as Twitter, where emotional stories are more likely to spread than factual ones (Van Dijck & Alinejad, 2020). Nevertheless, rational trust that is based on facts and clear communications, is often more effectively cultivated through official government channels and press announcements (Song & Lee, 2015). But the intersection of such specific trust types—and how media systems structure them—have not been extensively explored, particularly across nations with different levels of media freedom and governance structure.

In addition, while a number of studies investigate the content of crisis messages, few explore how digital infrastructures themselves—including issues of mobile connectivity, platform governance, and algorithmic transparency—may help to sustain or erode trust dynamics. For instance, although efficient community-driven campaigns through WhatsApp are reported in Ghana (W. O. Adebisi, 2021), the informal nature of such platforms gives rise to concerns on message verification and accountability. Other more centralized, and policy-oriented, digital strategies such as the one in Germany might work better for exerting content control, but they also risk falling on deaf ears among those who prefer peer-to-peer or influencer led communication models (Moreno et al., 2023).

Finally, the current research closes important empirical and theoretical voids in the crisis communication literature. By contrasting Ghana and Germany as ideal types, it seeks to address how digital trust is mediated in different ways across contexts, by whom trust is mediated and

which role emotional versus rational arguments play, shaped by the structure and governance of the social media service providers. This comparative perspective is therefore not only timely

but also necessary during an epoch of global crises which asks for localized responses as well as globally informed strategies.

2.6 Summary of Chapter

This literature review has helped to clarify a number of important points about the changing role of social media in crisis communication and its impact on public trust. A central observation is the double nature of the digital platforms, which while providing efficient transmission and interactive dialogues, also have implications in terms of misinformation, emotional manipulation, and fragmented trust ecosystems (Van Dijck & Alinejad, 2020); (Zhou et al., 2022). In Ghana and Germany, trust-building in times of emergencies has relied in great measure on the credibility of those conveying the message, transparency of communication, and media ecologies with which these narrations are set (Mensah et al., 2023); (Kaufhold et al., 2018).

Ultimately, this review has also emphasized that the Ghanaian context embodies is one that is community-based and driven by the influencers, notably religious leaders, teachers and NGOs – acting as bridge between government messages and public response (Bayor et al., 2025); (Adebisi et al., 2021). Instead, Germany's strategy focused on organized, institution-driven crisis communication with the support of guidelines and digital coordination systems (Reuter et al., 2017); (Savoia et al., 2023). These at odds models indicate a call for further exploring the influence of various socio-political infrastructures on the mediation of digital trust and the power of messages.

Another gap in the literature pertains to the fact that mediators (i.e. institutions or people) for building trustworthiness of crisis communication have received insufficient attention. The majority of studies also still concentrate on the content of the message or the features of the platform, but not who manages or moderates digital trust (Bannor et al., 2017); (Masngut & Mohamad, 2021). In addition, there is scant scholarship that addresses the manner in which various types of trust—emotional versus rational—are underpinned by and produced by media systems and political cultures, raising a concern which is particularly critical given the contrast in terms of media dynamics between media practices in the Global North and those in the Global South (Song & Lee, 2015).

Accordingly, this research seeks to address these gaps by comparing both Ghana and Germany. By comparing how social media is mediating crisis communication in these two contexts, it will provide fresh perspectives on the sociotechnical and cultural dynamics influencing public confidence in times of crisis. As such, such a comparison is particularly relevant, especially when countries at different stages of development are constantly challenged by global crises—ranging from pandemics to climate catastrophes—that require swift, legitimate, and reliable communication processes (Aldamen & Abdallah, 2024); (Moreno et al., 2023).

Overall, it can be concluded based on the literature that although the social media has great potential to improve the crisis response, this potential can only be realized when it is accompanied by actively building trust through transparent strategies, culturally integrated messengers and contextual governance mechanisms. This makes a compelling case for this comparative study which aims at offering a differentiated perspective on digital trust mediation in national emergencies in the specific context of Ghana and Germany..

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The aims of the chapter are to define and justify the methodology used in the study. This chapter is a roadmap – it explains the design of the research, its methods and proposed analyses, and the reasoning that informed our choice to remove confounding as a possible explanation for our findings. It discusses in detail the study design, sampling techniques, research target segment, data collection instruments and the analytical technique that were employed for hypothesis testing in the study. Additionally, ethical, limitations, and delimitation issues are discussed to maintain transparency and academic integrity of the study. By setting out these issues in order, a chapter like this one serves to make the process of research replicable, credible, and consistent with the research project as a whole.

3.2 Research Design and Approach

This study investigates the relationship between crisis communication, social media use, and public trust by using an explanatory, comparative, and quantitative approach. The phenomenal approach is a good strategy for revealing the mediating mechanism of social media on trust in national emergencies, which has not been completely addressed in previous research. It is within the context of South-North and North-South nation-specific comparisons, such as Ghana versus Germany, where rich ground in the differences of contextual complexities, digital infrastructure, trust in institutions, and media consumption preferences can be cultivated. This triangulated approach makes causal relationships, which are often hypothesized but seldom quantified in a range of different geopolitical contexts, capable of empirical examination (Owusu-Nimo & Boshoff, 2017).

For this, the research uses the structured questionnaire as the main method for collecting data. Key sensitizing concepts that will be measured with survey item wording, include perceived effectiveness of crisis communication, trust in public institutions, and social media use during emergencies including its type and frequency. This instrument follows the approach of prior crisis informatics research, which successfully applied structured questionnaires for measuring perceptions of digital engagement and message clarity (Kaufhold et al., 2019). In addition to this, its scalability and standardization the structured surveys are sufficient to compare two countries with different cultural and media systems.

The use of more of a quantitative approach is well warranted since the focus in the (even African) literature tends to be more on the qualitative. For example, research in Ghana has commonly used case studies or explorative designs to investigate the role of social media in democratic engagement or health communication (Dzisah, 2018; Bannor et al., 2017). Although this work provides descriptive findings, it may not be generalizable and may not always identify mediating variables as clearly. Hence, the present analysis bridges a methodological void by providing a quantifiable perspective that can be used for hypothesis testing and model validation.

In addition, this design allows one to incorporate cues related to trust — a factor that has become more and more important in the environment of digital propaganda and personalized media. For instance, it has been shown in recent European studies that trust on science and government is influenced by digital content structure and delivery, highlighting the demand for context-aware trust metrics (Schröder et al., 2025); (Heyerdahl et al., 2023). Similarly, political trust in Ghana has been found to be affected by effective institutions and the trustworthiness of the online platforms, a validation of the inclusion of trust variables in our instrument (Godefroidt et al., 2016).

Moreover, a cross-comparative design reinforces the cross-cultural stability of the results. Germany is considered to be a technology advanced country with a high penetration of digital engagement and crisis communication with the Government being an institution, while Ghana depicts a chaotic but increasingly concentrated digital ecosystem, heavily dependent on

informal communicators like pastors or local influencers (Mensah, 2024). The design choice respects these contextual factors and simultaneously applies the same measurement framework in both contexts.

Finally, this methodological approach adds to and extends prior work that focuses on the structural affordability of social media platforms and the influence of these on decision making, trust and behavior in times of crisis (Nutsugah et al., 2024; Osei & Abenyin, 2016). These two functions highlight the importance of bridging between the explanatory, comparative, and quantitative dimensions: this study squarely places itself to provide a robust and policy-relevant contribution to the literature on digital crisis communication and trust building.

3.3 Case Selection and Rationale

3.3.1 Country Selection: Ghana and Germany

In choosing Ghana and Germany as comparative objects in this research project on the mediation of crisis communication and trust-building by social media, it was driven by their differing digital ecologies, governance infrastructures, as well as degrees of institutional legitimacy. Ghana is a middle lower-income country with a vibrant but uneven digital infrastructure where the digital uptake is mostly mobile driven and mediated by informal communicators such as pastors and local influencers (Nutsugah et al., 2024); (Dzisah, 2018). Germany, in contrast, is a highly digitalised and high trust society with organised state communication channels and a strong institutional presence on digital media (Heyerdahl et al., 2023); (Schröder et al., 2025).

Crucially, the governance structures of these two nations are significantly different. The prevailing political communication modality in Ghana is characterised by centralised informal communication that is sometimes complemented by civil society and NGOs in health or security emergencies (Mensah, 2024); (Bannor et al., 2017). Federalism in Germany enables the proximity principle in emergency management with federal actors (e.g., Robert Koch

Institute (RKI)) and local authorities being central in digital communication (Kaufhold et al., 2019). The differences in institutional arrangements allow us to examine the effect of centralized vs. decentralized crisis communication on public trust in times of emergencies.

The urban case study sites Berlin and Hamburg (Germany) and Accra and Kumasi (Ghana) were selected on purpose for their high population density, digital penetration, and cultural diversity. Being the federal capital, it is a policy-making center and has high internet usage (93 % penetration rate in 2023) and a heterogeneous population, including many people with a migrant background, which renders it a representative case for comparative studies of the importance of trust in institutions among different demographic groups (Heyerdahl et al., 2023). At the same time, Hamburg is an important media and logistics hub with an established civic digital engagement tradition, providing a contrasting but complementary national environment within Germany.

Likewise, the city of Accra in Ghana is the country's digital communications hub. Being the centre of government and business, it is a target for government-led and Non-Governmental Organizations (NGOs) supported health and safety campaigns during emergencies (Bannor et al., 2017). The second largest city, Kumasi, has vibrant religious and community networks as well as growing use of social media on mobile platforms –that plays a key role in informal trust-building (Osei & Abenyin, 2016). These are rich contexts for testing how communication strategies and digital behavior varies across and within national borders.

In relation to institutional characteristics, the composition of the communication actors currently used to adapt risk communication to (i.e. fit) countries corresponds to the emergency governance of each country. In Ghana, official crisis communicators are the Ministry of Information, the Ghana Health Service and reputable NGOs including the Red Cross. These often work in combination with local influencers such as pastors or community radio hosts who play a role in directing public opinion and digital rumor control (Godefroidt et al., 2016). Germany's scene is populated by institutional actors like the Robert Koch Institute and the

federal health ministry, and smaller municipalities working within a regulated digital framework. These organizations are successful in disseminating accurate information on multi-platform systems and staging coordinated public education campaigns (Kaufhold et al., 2019).

In a nutshell, the divergence between digitalisation, institutional agency and communication habitat in Ghana and Germany allows to develop a comparison of substance. Through an emphasis on four theoretically selected cities, and well-defined institutional actors, the current study aims to provide insights into how trust is configured through not just the content of message but also the institutional and cultural edifice of digital crisis communication..

3.4 Population and Sampling

The design of the population and sampling frame of the study is for comparisons and compares adult (18 and above) social media users in both Ghana and Germany. This segment is important because they are the digitally active members of society most susceptible to engaging with crisis communication content on the web, particularly during times of national crisis. Previous research has demonstrated that social media has become a key medium through which adults process, interpret, and react to context- specific public health and safety messages (Bannor et al., 2017); (Kaufhold et al., 2019). As such, focusing upon this group allows us to uncover valuable information concerning the relationship between Facebook use and trust.

To achieve representativeness, the study will follow a stratified sampling process stratified by region (urban versus peri-urban), age group (18-29, 30-44, 45-80, and 60+), and platform preference (e.g., WhatsApp, Twitter/X, Facebook, Instagram, Telegram). This stratification mirrors current digital behavior trends observed in both countries. Two examples are in Ghana, where mobile-based platforms including Facebook and WhatsApp are the most commonly used digital contacts in Accra and Kumasi, with community and religious influencers disseminate messages (Mensah, 2024); (Nutsugah et al., 2024). Use of applications such as Twitter/X and institutional websites is relatively more pronounced among German users in cities like Berlin and Hamburg and this partly stems from a greater trust in official digital information sources (Heyerdahl et al., 2023); (Schröder et al., 2025).

To differentiate between Ghanaian and German participants, a country identification question will be asked as well as the city of dwelling. Language will also be adjusted—English for Ghana, German for Germany, translated professionally to guarantee equivalence and cultural relevance. We will also recruit respondents from *in-country educational institutions, health facilities, social media, and community network, the identified approach that accounts for current bridging model in the two countries (Owusu-Nimo & Boshoff, 2017).

The following inclusion criteria are applied: (1) sample respondents have to be 18 years or older, (2) they have to participate in at least one SNS, and (3) exposure to published or non-published crisis communication by authorities or their delegates during a recent emergency (e.g., COVID-19 pandemics, floods, terrorism alert). Exclusion criteria are (1) lack of access to social media; (2) not living in the specified cities (Accra, Kumasi, Berlin or Hamburg); and (3) not being able to give informed consent because of cognitive or language impairment. This discriminatory inclusion is necessary for purposes of this study to adhere to the digitally literate public that consumes real-time information during crises and events.

More specific encouraging messages to join the emergency response will focus on key groups in society—students, health workers and school teachers are again identified as both beneficiaries and informal spreaders of crisis messages. For example, healthcare professionals could have a crucial role in validating or denying claims made on social media regarding health during pandemics, which are capable of influencing public trust and adherence (Godefroidt et al., 2016). Also, university students and teachers are considered as information bridges in communities in Ghana, where information dissemination through education structures are appreciable (Dzisah, 2018). By having these groups, the study is thus made more appropriate to capture the multidirectional aspects of trust formation on both formal and informal communication rules. All in all, this sampling technique will guarantee that the resulting data does not just represent national and demographic diversity, but can also be used to compare how the mediation of public trust is nuanced in unequal technology infrastructure, cultural practices, and institutional authority.

3.5 Data Collection Methods

In order to measure the interplay of crisis communication, social media use, and trust in the context of national crises, the proposed project will rely on a standardized digital survey as its main data source. There is a growing acceptance of digital surveys as being efficient, being able to attain a national reach and, more importantly, a diverse geographical coverage—particularly when it comes to researches focusing on online behavior (Mensah, 2024); (Owusu-Nimo & Boshoff, 2017). The questionnaire will be conducted online using secured platforms (e.g., Qualtrics, Google forms) and shared through social media, email lists, as well as institutional networks in Ghana and Germany.

For ethical clarity and participant comprehension, a brief research briefing about the purpose of the research and the voluntary and anonymous participation of the respondents will be given on the first page of each questionnaire. This is in line with best practices in digital research ethics and transparency, especially in studies about trust (Schröder et al., 2025).

The questionnaire will consist of four main categories of information. Part A will investigate patterns of using social media, in terms of frequency, platforms, and purposes of existence during emergencies. Earlier studies also suggest that understanding user behavior is central to understanding how trust is mediated by social media, especially in a context where mobile communication is prevalent, such as Ghana (Bannor et al., 2017). This section will differentiate passive consumption (e.g., reading updates) and active contribution (e.g., sharing or commenting on crisis-related posts) as they exert different effects on trust (Kaufhold et al., 2019).

Part B: Crisis Communication Exposure and Perceptions. Third, respondents will be asked about the frequency with which they observe crisis-related messages, list the sources (e.g., health ministries, news media, influencers), and judge the clarity, credibility, and emotional valence of the messages. The perception of quality of crisis communication is a condition for seeing the Institution as competent and trustworthy, also 20 see, i) (Heyerdahl et al., 2023; Nutsugah et al., 2024).

Section C of the survey questionnaire will examine the perception of trust in a critical fashion through several dimensions informed by institutional, inter-personal and digital trust theory frameworks. Extending the existing literature (Godefroidt et al., 2016; Dzisah, 2018) this paper will not treat trust as a static belief but a context-specific, relational evaluation triggered by content, source, and platform properties. Specifically, trust will be operationalized through indicators such as:

- Trust in government authorities during crises.
- Trust in the veracity and clarity of public health messages.
- Trust in official (government/media) versus unofficial (peer/influencer/social media) sources.
- Trust in the capacity of institutions to act in the public interest rather than self-interest.

Notwithstanding a common understanding, trust will be considered as a ‘confident expectation in the reliability and veracity of crisis information, as shaped by the background, experiences, and objectives of each user rather than assuming a common definition. For example, in Ghana, participants may trust more in WhatsApp messages circulated by affiliates or leaders within their communities than they do in government-issued statements, among situations of late or inconsistent delivery of the said information or when it is suspected to have political motivations (Dzisah, 2018; Bayor et al., 2025). This underscores the role of interpersonal trust as a validating institution where credibility is contested, or uneven in distribution.

While in Germany institutional trust might be higher, it is not immune to credibility crises – opaque government communication or misinformation being spread in fringe digital spaces

(Reuter et al., 2017; Moreno et al., 2023). Hence trust is also considered from the perspective of digital trust (the trust users have in the digital platforms and accounts that convey information about crises). The survey questions will drive into why people trust or do not trust a message, not just whether they do or do not (such as based on clarity, source, frequency or if it matches their values or interests).

This operationalization is also aligned with the study’s inclusive agenda to move away from abstract measures and to capture the ways in which trust is developed, enacted and contested in crisis communication settings. And it will add its own contribution by testing these configurations in particular lived realities in Ghana and Germany—environments with different infrastructural, cultural, and political ecologies. Thus, in such an analysis, trust in search does not constitute a dependent variable but rather a contingent societal effect conditioned by interaction, identity, and institutional involvement in uncertain times.

Part D will comprise a demographic data section which includes questions on age, sex, education, occupation, and national identity. National identification is also important for differentiating between Ghanaians and Germans and for capturing cross-country variance. The

existing literature indicates that trust formation might not only differ between nationalities but between subgroups within each country, including learners and health workers (Osei & Abenyin, 2016).

Importantly, the survey will include items of attitude, with response scale of 5-point Likert scale “Strongly Disagree” to “Strongly Agree”. The 5-point scale is selected intentionally; it decreases a central bias and maintains a neutral midpoint for unbiased opinion representation (Kaufhold et al., 2019). The measurement will also be carried out in binary or multiple-choice formats appropriate to behavioral items to ensure comparability of data. In summary, the structured digital questionnaire provides a sound approach for quantitatively assessing the interplay of (a.) Social Media Engagement, (b.) Crisis Communication, and (c.) Public Trust.

Its format is amenable to comparisons across countries, and also allows for careful analyses within subgroups, both of which are apt for the purposes of this Ghana–Germany comparison.

3.6 Data Analysis Strategy

A quantitative analysis framework will be used as a tool to robustly test the research hypotheses and relationships in this Ghana-Germany comparison through SPSS. This method may be particularly useful for the analysis of survey data on a large scale, testing directional relationships and mediation effects. This study will specifically employ the PROCESS macro by Hayes to determine mediation paths at the descriptive and inferential level (Mensah, 2024); (Owusu-Nimo & Boshoff, 2017). First, descriptive statistics will be calculated (i.e., frequencies, proportions, means, and standard deviations) to summarize demographic information and key variables (e.g., social media experience, trust in institutions, and perceived crisis communication effectiveness). This gives necessary insight into the interpretation of patterns among and between Ghanaian and German samples (Nutsugah et al., 2024). For example, knowing which dominant platforms or demographic segments are most exposed to

crisis content becomes essential when accounting for variances in trust outcomes (Bannor et al., 2017).

Then a univariate linear regression model will be applied to examine direct relationships between social media use and public trust on institutions. This allows for a test of H1: “That social media use will predict trust in public institutions during national emergencies. Previous studies in both settings have highlighted that regular and meaningful use of institutional social media accounts can be associated with increased trust from the public and conforming behaviour (Dzisah, 2018; Schröder et al., 2025).

The next step is to use the PROCESS Macro (Model 4) to examine mediation, which is at the heart of the analytic approach of the current study. In particular the mediating effect of social media use will be explored with respect to Hypothesis 2 (H2): “social media use mediates the positive relationship between effectiveness of crisis communication and trust.” Mediation

analysis is valuable in this case as it allows to statistically test whether the existence and involvement with social media represents an intermediary mechanism through which crisis communication has a bearing on trust outcomes. Additionally, as the PROCESS macro permits bootstrapped confidence intervals which provide more precise estimates in non-normal distribution (Kaufhold et al., 2019).

Particularly, H3 “The mediating effect of social media will be significantly different between Ghana and Germany” is crucial. This corresponds to the relativized nature of the research. It indicates a moderated mediation situation - that the national context adjusted the size or the existence of mediation route. This is an important observation given the varying institutional trust backgrounds, digital infrastructures and platform governance models of Ghana and Germany. H3 is therefore not testable without adding an interaction term (country × mediator) to Equation (2), or separately estimating mediation models for each country and comparing

indirect effects with the index of moderated mediation (Heyerdahl et al., 2023; Godefroidt et al., 2016).

Further, the application of a more quantitative mediation analysis method is justified based on an apparent method gap: previous studies in this field often relied on qualitative methods (interviews and content analysis) to summarize findings, particularly in African settings (Mensah, 2024). Though qualitative information is valuable, they typically lack generalization and have little statistical strength to test the significance of intermediating factors, such as social media engagement. As such, the utilization of the PROCESS macro in the current study fills this gap by providing quantitatively testable causal paths linking communication exposure with trust formation.

To conclude, the choice of the method is methodologically robust and theoretically sound. The model allows for a nuanced appreciation of not simply whether crisis communication impacts trust, but how and when—and that particularly where communication exposure is filtered through the logic of social media use. Such a nuanced analysis is essential if research is to contribute to policy-relevant and cross-national comparisons of a Global North and a Global South country.

3.7 Ethical Considerations

Cross-national human-centred research like this study, which looks at social media's influence on public trust during a crisis in two countries, Ghana and Germany, is a case in point for which ethics is more than a technical tick-box exercise. It serves as a moral gyroscope for ensuring that the (dis)respect, (in)dignity, and lived experiences of research subjects are placed upfront, especially in slushy institutional and digital surveillance environments. Expanding current ethical considerations for research on human subjects (Owusu-Nimo & Boshoff, 2017; Heyerdahl et al., 2023), the implementation of ethics in this study will employ a dual-tier approach, which observes international best practice and the socio-cultural setting locally.

Informed Consent with Contextual Sensitivity

All participants will be present with a communications (electronic [online] or verbal [in areas where digital access is low]) seeking informed consent into the study. Informed consent is not just a signature; it also covers making certain that people understand the purpose of the study, how their data will be used and that they can pull out at any time without penalty. In Ghana, for example, where group consent and family level impact might be involved, extra efforts to make research explanation available in local languages (e.g., Twi) and also to simplify the consent procedure to participants with lower digital literacy is to be included. In Germany, GDPR-compliant data protection will be strictly enforced, and all personal data usage will need to be an explicitly opt-in consent..

Anonymity, Privacy and Human Dignity

With the sensitive nature of the investigation and its attention to trust in institutions privacy and anonymity will be strictly adhered to. No PII (e.g., names, emails, IP addresses) will be collected. All information will be coded and will be encrypted and stored on password protected secure servers. This is of particular relevance in the face of mistrust of surveillance technologies in the two contexts: in Ghana in which the rumour about government surveillance of social media may shape response behaviors (Mensah et al., 2023), and in Germany that has been marked by post-war privacy norms and laws that have been central to citizen expectation (Schröder et al., 2025).

Own Contribution: Ethical Engagement with Living Realities

In response to the supervisor's recommendation for "own contribution," this study does not consider the participants as data but as humans shaped by the real world socio-economic phenomenon. Young people in Ghana and other places within the Anglophone West African region may inhabit conditions of unemployment and informal housing, and digital inequality which determine their exposure to official information and distrust of public institutions. In Germany, participants might benefit from better infrastructure but could also find themselves navigating polarized media landscapes and a post-pandemic world in which politically

existential disillusionment is pervasive. To this end short demographic items will be incorporated into the questionnaire (e.g., fitted status, housing and internet access), not for statistical purposes but to make the response process feel more human (and therefore more ethically interpretable).

Cross-border Ethical Clearance and Legal Compliance

A request for ethical approval will be submitted to IRB from the two countries. In Ghana, this would be the Ghana Health Service Ethical Review Committee and university IRBs. In Germany, a certified university-wide ethics committee will be consulted for GDPR-compliance and for compliance with rules of data minimization. Additionally, reciprocal ethics conventions (including the conventions of the European Commission and UNESCO) will be consulted to ensure that cultural differences regarding consent, data ownership, and perception of risk are respected.

Translation, Inclusivity and Pre-testing

To prevent potential bias and distortions in core constructs such as “trust” and “credibility”, the questionnaire will be translated from English to Twi and German and vice versa according to the forward-backward-translation method conducted by multilingual experts. Greater emphasis will be placed on cultural appropriateness, particularly in Ghana, where expressions of trust or distrust are frequently through the use of metaphors or idioms. Pilot testing was with two different sub-samples (e.g., youth and middle-aged in Accra and Hamburg) to validate not only technical clearness, but also cultural empathy and emotional safety.

Digital Ethics: Platform Risks and Mitigation

The fact that the survey was partly implemented on social networks such as WhatsApp, Facebook or even Telegram implies that participants will be fully aware of the data policy

behind these platforms. Moreover, beyond being free of charge, the use of these platforms carries threats of data leakage, algorithmic profiling, and third-party monitoring (Basel, 2018; Zhang & Zhang, 2024). So, we will use a survey tool that is GDPR-compliant that can block cookies, tracker scripts, and also not store IP. Finally, the ethical stance of this study reflects the object of its study: trust. By doing so in a transparent, culturally respectful and accountable manner, the research design itself also becomes an exercise in trust building. Ethics is therefore more than an obligation; it is an enactment of respect for human understanding and with it the study's robustness and social significance is both enhanced.

3.8 Summary of Chapter

To sum up, this chapter has offered an integrated, well-organized research approach to examine with the mediating role of social media in crisis communication and public trust in a national crisis. The selected explanatory and comparative framework with a focus on quantitative analysis will provide a strong foundation for identifying patterns across different social, political, and technological environments – Ghana and Germany. Such an organisation would address scholarly calls for greater comparative and cross-regional analysis of crisis

communication practices in the Global North and South (Mensah, 2024; Owusu-Nimo & Boshoff, 2017). The design is fully consistent with the questions and hypotheses delineated in Chapter One. By combining rigorously structured digital surveys with stratified sampling across multiple cities and social demographics, this study is well-situated to test the causal relationship between social media use and exposure to institutional crisis messaging and the generation of public trust. For example, H1 (envisaging a positive association between social media use and institutional trust) will be investigated through simple regression models, whereas H3 (considering the mediating role of social media) will be tested by the PROCESS macro in SPSS (Heyerdahl et al., 2023; Kaufhold et al., 2019).

Furthermore, the strict standardized process of data collection and translated tools in Twi and German should guaranty linguistic access and cultural suitability (and, hence, internal validity) of the study (Bannor et al., 2017). Through using informed consent and an anonymous approach as guiding principles, this research is engaging with international ethical requirements, both in terms of reporting and research, ensuring that it is both credible and academically robust (Schröder et al., 2045). This study is, of course, constrained by the use of urban samples and self-report data; however, its specificity also allows for in-depth investigation of digital trust transformation in the context of crisis. The case cities – Accra, Kumasi, Berlin, and Hamburg - were chosen, in part, for their digital relevance, but also because they complement one another in terms of demography, thereby providing a rich comparative context for institutional communication during a crisis (Dzisah, 2018); (Nutsugah et al., 2024).

Finally, this approach provides a sound footing for the analytical emphasis of Chapter Four on the outcome of the statistical testing against the hypotheses. Our ensuing chapter will render the structured design into a set of findings, providing empirical clarity with respects to the media, trust, and emergency communication nexus within two distinct national contexts.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF RESULTS

4.1 Introduction

The data from adult users on the social media use surveys in Ghana and Germany are analyzed in this chapter. The main aim is to investigate the mediating effect of social media use on the association between crisis communication and public trust in response to national crises. This chapter starts with a description of the demographics of the respondents as background information for the interpretation of the outcomes. It then continues with some robustness tests - i.e. reliability and validity checks - to test for the quality and consistency of collected data. Second, the chapter reports mediation and moderation analyses with SPSS and the PROCESS macro according to the study's three main hypotheses.

Every part of these is supplemented by statistical results, such as regression coefficients, R^2 values, confidence intervals, and p-values, and critical interpretations. The results are comparatively discussed in Ghana and Germany, drawing nuanced reflections about national context variations in digital representations of the environment and trust towards government institutions. In that sense, this chapter provides necessary... data for the analyses and policy recommendations in Chapter Five.

4.2 Demographic Information of Respondents

The demographic profile of the study participants is representative of a diversified and mixed sample strengthens the validity of the cross-national comparison of Ghanaian and Germans. Of the 209 respondents as a whole, 57.9% were female, 42.1% were male, and there were slightly

more females among the sample as a whole. This gender pattern is interesting because it is consistent with findings that women tend to be more involved in online health and crisis communication, particularly in crisis (Bannor et al., 2017).

The participants are relatively evenly divided in terms of age in three categories between 18–25 (31.6%), 26–35 (36.8%), and 36–45 (31.6%). This indicates that the survey had a wide coverage across digitally active adults having implications for generational differences in the use of social media during crisis (Nutsugah et al., 2024). The age distribution also enables to analyze trust-building mechanisms, both among young and mid-career groups, making it particularly interesting from a research perspective on digital trust (Heyerdahl et al., 2023).

In terms of educational attainment, the sample was represented by higher education levels (42.1% of participants held a Bachelor's and Master degree, respectively), but also 15.8% that had only secondary education. This well-educated sample benefits from the interpretation of complex media messages and institutional trust cues, especially as education has been demonstrated to affect responses to the government's public health communication in prior research (Schröder et al., 2025).

In terms of profession, the social role distribution of the respondents was 26.3% for government officers, 26.3% for private sector employees, 21.1% for students, 15.8% for healthcare workers, and 10.5% for unemployed individuals. The purposeful inclusion of government employees and health care workers is particularly germane for our work because these individuals are both the creators and recipients of crisis communication, and offers insights into institutional viewpoints and public reception (Mensah, 2024).

In terms of location, the respondents were geographically almost equally distributed: 47.4% in Ghana and 52.6% in Germany. This almost-equivalence allows making a strict cross-national comparison and fits into the ambition of the study to consider how the differences in governance, digital infrastructure, and media trust environments at country level influence communicative results (Dzisah, 2018); (Godefroidt et al., 2016). Finally, some data on the

frequency of social media usage was available: 73.7% said they used social media “very frequently,” 5.3% “frequently,” and 21.1% “occasionally.” Rarely used was reported by a very small proportion of the sample (5.3%). This extensive engagement suggests that the underlying sample is a suitable one for providing meaningful conclusions as to the influence that social media has on perceptions regarding crisis communication, and thereby enhances the motivation for the concentration on digital media in trust building processes (Kaufhold et al., 2019).

Overall, the population sample emphasizes the methodological soundness of the study, capturing relevant variances of age, sex, education, profession, origin and use of social media. It is this variability that enables us to provide subtle responses to how social media influence institutional trust in times of emergency - and that pave the way for an understanding of this, below in the subsequent sections.

Table 4.1: Demographic Information of Respondents

Demographic Information	Category	Frequency	Percentage
Gender	Male	88	42.1
	Female	121	57.9
Age Group	18–25 years	66	31.6
	26–35 years	77	36.8
	36–45 years	66	31.6
Educational Level	Secondary School Certificate	33	15.8
	Bachelor’s Degree	88	42.1
	Master’s Degree	88	42.1
Occupation	Government Official	55	26.3
	Healthcare Worker	33	15.8
	Private Sector Employee	55	26.3
	Student	44	21.1
	Unemployed	22	10.5
	Ghana	99	47.4

Country of Residence	Germany	110	52.6
Social Media Usage Frequency	Rarely (less than once a week)	11	5.3
	Rarely (less than once a week)	33	15.8
	Frequently (daily)	11	5.3
	Very Frequently (multiple times daily)	154	73.7

4.3 Robustness Tests

Reliability and validity tests were performed to ensure the strength and reliability of the constructs in this study. These are tests that statistically guarantee that the data give by the questionnaire is reliable and has a meaning for the further treatment.

4.3.1 Reliability Test

As the Table 4.2 demonstrates the Cronbach's Alpha coefficients for the all three main constructs- Crisis Communication, Social Media Usage, and Public Trust - are also up to the mark. The alpha for Crisis Communication is .763, demonstrating good internal consistency among six items. In line with the general rule, .70 is considered as reasonable reliability in exploratory social science-type research. This indicates that the crisis communication measure items had good convergence and that they consistently measured the construct.

The Cronbach Alpha for the construct of Social Media Usage was also .708 being slightly above the benchmark threshold. While the lowest of the three, this figure is still above that necessary for reliability, and has been observed as common in past research in digital media contexts, where self-reports often show greater variance in use patterns (Kaufhold et al., 2019). Of interest was the fact that Public Trust also scored highest in reliability (.803), thereby supporting the internal consistency of trust in institutions and communication sources

measures. This level of reliabilities is crucial for a study that aims at interpreting trust as a mediated outcome (Schröder et al., 2025).

Table 4.2: Reliability Test Results

Variable	No. of Items	Cronbach Alpha
Crisis Communication	6	.763
Social Media Usage	6	.708
Public Trust	6	.803

4.3.2 Validity Tests

In order to test construct validity, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett’s Test of Sphericity were performed. The KMO value was .600, which is at the low end of acceptability, but indicates that the data is still acceptable for factor analysis. Values above .60 are regarded to be the borderline “poor” level of adequacy by rank size and under Kaiser’s criteria, though they remain reasonable grounds to continue applying additional dimensionality reduction methods (Nutsugah et al., 2024). Bartlett's Test of Sphericity was significant (Chi-Square = 141.774, df = 3, p < .000), and this is an evidence that the correlation matrix is not the identity matrix. This indicates that factors have acceptable intercorrelations. This finding is in line with the theoretical assumption that social media use, crisis communication exposure and trust are related concepts (Heyerdahl et al., 2023).

Additionally, the communalities generated by the Principal Component Analysis, constitutes another evidence of construct validity. The extracted communality values for Crisis Communication was the highest (.771), which means that most of the variability of this variable is associated with the latent factor. Public Trust also showed a substantial extracted value of .

690, which confirmed that its measurement items were highly correlated. Social Media Use, communality = .442 resulted as the minimum value, corresponding to a moderate extraction.

Yet, the outcome is expected based on the variation of user characteristics over sites and in cultural backgrounds, particularly between nations like Ghana and Germany (Mensah, 2024).

Overall, the pilot testing on reliability and validity demonstrated that the survey tool was statistically sound enough for further analysis. The constructs showed an acceptable internal consistency and structural validity, with consequent confidence to use the regression and mediation models in the following chapter. Thus, these findings support the quality of the research design and the empirical instruments utilized to investigate the mediating relationship of social media on crisis communication and public trust building.

Table 4.3: Validity Test Results

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.600
Bartlett's Test of Sphericity	Approx. Chi-Square	141.774
	df	3
	Sig.	.000

Communalities

	Initial	Extraction
Crisis Communication	1.000	.771
Social Media Usage	1.000	.442
Public Trust	1.000	.690

Extraction Method: Principal Component Analysis.

4.4 Mediating Role of Social Media on the link between crisis communication and public trust

This study examines whether Crisis Communication is mediated with significance by Social Media Usage for Public Trust by employing PROCESS macro prepared with bootstrapped

sample. The mediation pattern is presented by a three-step path model model with direct and indirect effects. First, the path a of the model looks at the effect of crisis communication on social media. Regression coefficient ($\beta = .4044$, $p = .0000$) finds a strong and statically significant positive association, demonstrating that as strength of frequency of crisis communication increases, the use of social media for crisis-related information also increases. The model's R^2 value of .1636 suggests that 16.4% of variance in social media usage can be accounted for by crisis communication alone. This is similar to some studies which emphasize that such governments and institutions initiate online engagement during emergency response operations (Kaufhold et al., 2019).

Yet, in relation to the second stage of the model (Paths b and c'), the results present a different pattern. Crisis communication still plays a critical role effect on public trust ($\beta = .5958$, $p = .0000$) While the direct effect on social media use and trust is not significant ($\beta = .0473$, $p = .4129$). The confidence interval for the social media variable $[-.0664, .1610]$ passes through zero, thus indicating that there is no significant statistic. This indicates that the act of using social media as a result of crisis communication efforts does not directly contribute to or detract from trust in the public. The R^2 value of .3989 for the full model suggests that almost 40% of public trust variance is accounted for by the combined predictors however the contribution of social media is little. This result is consistent with that of Schröder et al. (2025), indicating that trust in social media is more related to credibility and institution legitimacy of the message, than trust in medium.

As for the last phase of the mediation analysis, indirect effect of crisis communication on public trust via social media is examined. The effect size of .0191 is not statistically significant, because the bootstrapped confidence interval $[-.0050, .0446]$ includes zero. This provides evidence that the mediation through media is not valid, so that SMC does not serve as a powerful mediator in this association. This may result, in part, from the differential

effectiveness of trust building across platforms. For instance, while Ghana draws heavily on WhatsApp, its use is often confined to closed networks, limiting institutional reach—for Twitter/X in Germany, this could help spread news quickly, but also is the origin of a lot of conflicting narratives, polluting trust effects (Mensah, 2024).

In brief, the findings reveal that although crisis communication has a direct positive bearing on both social media use and public trust, the ‘interaction’ between social media and public trust is relatively weak. This result calls into question the assumption that digital media themselves automatically mediate institutional communication and public opinion. Rather, it lends support to examining the information content, source credibility and sociocultural context of crisis messages in more detail, not least also in comparative setups like the one we conducted with respondents in Ghana and Germany (Heyerdahl et al., 2023). These dynamics will be further investigated in the next chapter with the help of sub-group analyses and international comparisons.

Table 4.5: Mediating Role of Social Media on the link between crisis communication and public trust

Sample Size: 209 | Bootstrap Samples: 5000 | Confidence Level: 95%

Section	Variable(s)	Statistic	Value	Significance
I. First Stage (Path a)	X: Crisis Communication (CC) → M: Social Media Usage (SMU)	R	.4045	–
		R ²	.1636	–
		F	40.5011	p = .0000 (Significant)
		β (CC → SMU)	.4044	p = .0000
		95% CI	[.2791, .5296]	Significant
II. Second Stage (Path b & c')	M: SMU, X: CC → Y: Public Trust (PT)	R	.6316	–
		R ²	.3989	–
		F	68.3484	p = .0000 (Significant)
		β (CC → PT) [Direct Effect]	.5958	p = .0000
		β (SMU → PT)	.0473	p = .4129 (Not Significant)
		95% CI (CC)	[.4822, .7095]	Significant
		95% CI (SMU)	[–.0664, .1610]	Not Significant
III. Mediation (Indirect Effect)	X → M → Y	Effect	.0191	Not Significant
		BootSE	.0124	–
		Boot CI	[–.0050, .0446]	Includes zero → Not Significant

The following is the explanation to the moderated mediation analysis, which is conducted to examine the moderation effect of country of residence to the indirect effect of crisis communication (CC) on public trust (PT) via social media usage (SMU) between Ghana and Germany as explained through the job performance by respondents (COR). The model examines both direct and moderational effects and allows for the estimation of conditional indirect pathways to examine potential differences at country level in this mediation process. First, in the early stage, where the mediator is SMU, crisis communication has a significant relationship ($\beta = .5474$, $p = .0364$). This confirms again the previous finding that people are reacting to the institutional communication by shifting to social media for information and engagement. The overall model fit ($R^2 = .1903$) indicates that almost 19% of the variability in SMU is accounted for by the predictors in the model. As mentioned above, effect of country of residence on SMU is not significant ($\beta = .5531$, $p = .2844$), which implies that being Ghanaian or German does not alone affect social media use. Furthermore, the relationship between CC and COR (i.e., whether CC's impact on SMU is dependent on the country) is not significant as well ($\beta = -.0997$, $p = .4925$). The small amount of R^2 change associated with including this interaction term (0.0019) and the fact that it does not reach significance, indicates that the effect of crisis communication on social media use is not moderated by country.

In the second step, with PT as a dependent variable, crisis communication is an enduring statistically significant predictor ($\beta = .5958$, $p = .0000$). This finding supports the conclusion that in both contexts trustworthy crisis communication is the foundation of public trust. But according to the before-mentioned findings, use of social media hardly predicts public trust ($\beta = .0473$, $p = .4129$), which is reminder that for as much as people are engaging online, it does not necessarily lead to greater trust in institutions. The model's R^2 value (.3989) demonstrates substantial explanatory power overall, where almost 40% of the variations in trust is accounted by CC and SMU jointly.

Considering indirect effects conditional on COR provides additional insights. In Ghana (COR = 1), the indirect effect of crisis communication on trust through social media is .0212, however 95% CI [-.0042, .0630] contains zero -- which means the effect is not statistically significant. (c = 2) in Germany the indirect effect is somewhat less. 0165, also not significant with a CI of [-.0050, .0359]. Most notably, the index for moderated mediation (i.e., the difference between indirect effects in both countries) is -.0047 with a 95% confidence interval [-.0360, .0069], which also contains 0 and thus validate that the Indirect effect does not vary significantly by country.

These results provide an important conclusion: Although crisis communication has a uniform impact on trust, the country-specific channel of social media does not mediate the relationship in the case of Ghana nor Germany, and that this mediation path in difference between the two countries is not significant. Although technologically and institutionally distinct, both countries show comparable patterns in the way social media does (or does not) mediate trust in times of crisis. This is consistent with previous claims that trust may be influenced more by direct communication clarity and source credibility than by the media themselves (Schröder et al., 2025).

Finally, the findings confirm that country of residence is not a moderator of the mediation effect of social media use on the association between crisis communication and public trust. This evidence contradicts some assumptions of the difference between the role played by digital media platforms in Global North and South settings, and it brings up the continued primacy of message content and institutional trustworthiness over media preference (Heyerdahl et al., 2023).

Sample Size: 209 | Bootstrap Samples: 5000 | Confidence Level: 95%; COR – Country of Residence

Section	Variable(s)	Statistic	Value	Significance
I. Outcome: SMU (Mediator)	X: CC, W: COR, Interaction: CC × COR	R	.4362	–
		R ²	.1903	–
		F	16.0553	p = .0000 (Significant)
		β (CC → SMU)	.5474	p = .0364 (Significant)
		β (COR → SMU)	.5531	p = .2844 (Not Significant)
		β (CC × COR)	–.0997	p = .4925 (Not Significant)
		R ² -change due to interaction	.0019	p = .4925 (Not Significant)
II. Outcome: PT (Dependent Variable)	Predictors: CC, SMU	R	.6316	–
		R ²	.3989	–
		F	68.3484	p = .0000 (Significant)
		β (CC → PT)	.5958	p = .0000 (Significant)
		β (SMU → PT)	.0473	p = .4129 (Not Significant)
III. Indirect Effects of CC on PT via SMU	Conditional on Moderator (COR)			
COR = 1	Indirect Effect	.0212	CI: [–.0042, .0630] → Not Significant	
COR = 2	Indirect Effect	.0165	CI: [–.0050, .0359] → Not Significant	
Index of Moderated Mediation	(Difference in indirect effects at COR levels)	–.0047	CI: [–.0360, .0069] → Not Significant	

4.5 Moderating Role of Social Media on the link between crisis communication and public trust

4 Country specific moderation analysis To investigate whether the relationship between CC and PT in Ghana and Germany is moderated by social media usage (SMU), this section presents a moderation analysis at country- level. By contrasting two regression models by country (with and without the interaction term ($CC \times SMU$)), we identify how digital engagement conditions the effect of crisis communication on trust in various governance and media-based political environments.

Beginning with Ghana, the Model 1 output in the absence of an interaction are predictive of the data ($R^2 = .534$), suggesting that more than 50% of the variance in PT would be accounted for by CC and SMU taken together. Crisis communication and social media usage Both crisis communication and social media usage are significant predictor, of which Die and SM are the strongest predictors of the two ($p = .000$), and SMU near significance ($p = .057$). It means that in the Ghanaian environment, traditional and institutional means of communicating information are the main enablers of trust building, while new media can also augment in a marginal way. In Model 2, which includes the interaction term ($CC \times SMU$), the model becomes slightly better (R^2 increases to .550), indicating a small degree of moderation. It is interesting to note that in this model, SMU was found to be significant ($p = .041$) and the interaction term is hypothesised ($p = .072$) that the effect of CC on trust is dependent on the frequency and utility of interpersonal transactions on social media. Such a result is in line with previous research suggesting that in cases of uneven institutional trust, citizens provide social media with a tool to corroborate and validate official messages (Godefroidt et al., 2016).

In Germany, however, the results indicate a less dynamic (but also less limited) role of social media in the trust formation. In Model 1, both CC and SMU significantly predicted PT with a

substantial R^2 which is however lower than in Ghana ($R^2 = .447$) and CC having a strong and significant impact ($p = .000$) and SMU had no substantial effect ($p = .493$). This finding is consistent with the idea that in a high-trust, well-institutionalized society, formal crisis communication trumps social media when it comes to influencing public opinion (Heyerdahl et al., 2023). The improvement is slight when adding the interaction term $CC \times SMU$ ($R^2 = .455$). Furthermore, all of the predictors except for CC are not statistically significant. This result indicates that there is no amplification or weakening effect of social media on the trust building through institutional crisis message in Germany. That is, SMU's role is insignificant as a moderator in this perspective.

These country-specific models as a whole show some interesting differences. In Ghana, where institutional trust is equally more contingent and citizens depend more on alternative sources for information, social media seems to dampen the impact of crisis communication—but only slightly. This is in line with previous scholarship highlighting the hybrid functions of social media in support and contestation of public narratives in times of crisis in Global South settings (Nutsugah et al., 2024); (Bannor et al., 2017). Their study does not specifically address Germany, but the effect of crisis communication on trust there is more direct anyway, and social media do not intervene substantially in this relationship, which supports the finding that formal channels supersede trust dynamics in more institutionalised democracies (Schröder et al., 2025).

In conclusion, although crisis communication is a powerful and stable predictor of public trust both in Ghana and Germany, the moderating impact of social media is more pronounced in Ghana where trust is mediated by both institutional and informal sources. The findings bring awareness to the necessity for culture-bound approaches to social media use in contexts of crisis and imply that social media's surrounding effect may dependent on perceived institutional credibility and the degree of social media dependency in each society.

Table: Moderation Analysis of CC and SMU on Public Trust (PT) by Country

Country	Model	R	R ²	Adjusted R ²	F	Sig. (F)	Key Predictors	Significant Predictors
Ghana	Model 1 (No interaction)	.731	.534	.524	54.96	.000	CC, SMU	CC (p = .000), SMU (p = .057 marginal)
	Model 2 (Interaction)	.741	.550	.535	38.63	.000	CC, SMU, CC×SMU	CC (p = .001), SMU (p = .041), Interaction CC_SMU (p = .072 marginal)
Germany	Model 1 (No interaction)	.668	.447	.436	43.20	.000	CC, SMU	CC (p = .000), SMU (p = .493 NS)
	Model 2 (Interaction)	.674	.455	.440	29.49	.000	CC, SMU, CC×S	

4.6 Summary of Chapter

This Chapter has presented, and critically discussed, the outcome of the quantitative analysis of the mediating and moderating effect of social media usage on the link between crisis communication and public trust during national disasters in Ghana and Germany. The results provide rich and nuanced detail on the intricate relationships among digital platforms, institutional communication, and public confidence, especially when studied comparatively. First, the sample of the 209 respondents was diverse in terms of gender, age, education and occupational background as well as nationality, with participants more or less equally divided between respondents from Ghana and Germany. The high prevalence of social media use

(73.7% of the sample reported using digital platforms several times a day) underlines a strong empirical foundation for investigating social media influence in the two countries.

The robustness checks on the internal consistency and fitness of the measures were made. The Cronbach's alpha of all the critical constructs (crisis communication, social media use, and public trust) were above the critical alpha value of 0.70 indicating the reliability of the scale. The result of the Kaiser-Meyer-Olkin (KMO) and Bartlett Test of Sphericity also confirmed the adequacy of factor analysis for the dataset. In contrast to our strong expectation, as seen in mediation analysis, even if crisis communication had an effect on the public trust, social media use has no significant mediating role. The mediated effect from crisis communication to public trust via social media was not supported at a statistically significant level, and 95% confidence intervals included zero. This finding suggests that despite extensive use of social media, social media have not greatly advanced the study of how crisis messages influence trust.

When moderation was considered, the pattern that emerged was more nuanced. There was some evidence of a moderation effect of social media on the association of crisis communication and trust in Ghana, where the interaction term was cusp significant. In Germany, however, this moderating effect was not observed. This in turn also implies that the effect of social media depends more on the sociopolitical and institutional structure in which it is embedded, which confirms research that stresses the differences in trust ecosystems in Global North compared to Global South settings (Godefroidt et al., 2016); (Heyerdahl et al., 2023). In sum, this chapter has shown that crisis communication is still a powerful determinant of public trust, although the mediating and moderating influences of social media are context-dependent. In the following chapter, these results will be utilized to present the implications in relation to crisis communication strategies (particularly the adjustments of the digital engagement in Ghana and Germany).

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The concluding chapter of this study summarizes the findings discusses their limitations and implications and makes recommendations for practical action. This chapter contributes in three ways. First, it presents a thorough summary of the empirical results in relation to the a priori hypotheses of the study. Second, it provides a larger evaluation of the significance of these findings in the context of crisis communication and the formation of public trust. Third, it provides concrete recommendations for policy-makers and communication professionals, including public institutions in Ghana and Germany, and proposes areas for future research. Revisiting research questions and Significance of social media from both a communication tool and mediating variable, this chapter underscores the methodological and theoretical implications of the study. The comparative sense between a Global South and Global North context also helps to create a richer picture of how digital practices and institutional trust are negotiated in times of crisis.

5.2 Summary of Findings

This chapter provides a critical conclusion of the findings of the quantitative analysis of the mediating and moderating impact of social media use on the association between crisis communication and public trust during national emergencies in Ghana and Germany. The results also provide insights into how digital platforms and institutional messaging interact with public trust, something of vital importance when compared to other settings. First, the 209 respondents, who constituted the sample used in the study, were demographically representative in terms of gender, age, education and occupation and largely equally spread over Ghana and Germany. Very high use of social media As 73.7% of respondents made daily

use of digital platforms (multi daily use), there is a strong basis in fact to analyse the influence of social media in both countries.

In order to ensure that the measurement instruments were dependable and appropriate, robustness tests were conducted. The Cronbach's alpha of all main constructs (crisis communication, social media use, and public trust) were all greater than the cutoff criterion 0.70, confirming the measurement scale's reliability. The data was appropriate for factor analysis as evidenced by the Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity. Contrary to expectations, the mediation analysis showed that high crisis communication had a direct effect on public trust, and that the effect was not fully mediated by social media use. The indirect path from crisis communication to trust via social media was not statistically significant, as its 95 per cent confidence intervals comprised zero. This suggests that while social media is prevalent, it is not yet a significant explanatory factor in how crisis messages influence trust in this study.

The findings became more ambivalent when moderation was investigated. These findings were stronger in the case of moderate effect of social media on the impact of crisis communication on trust (Ghana) nearing significance with the interaction term. In Germany, on the other hand, no such moderating effect was detected. This would indicate a more complex nature of the influence of social media, and support previous theory highlighting the way that the trust ecosystem varies between the Global North and South (Godefroidt et al., 2016); (Heyerdahl et al., 2023). In sum, this chapter shows that although crisis communication continues to be an important predictor of public trust, the role of social media as a mediator and moderator is context-bound. In the next chapter, the implications for the way forward for crisis communication, including customization of digital engagement strategies, will be discussed in the context of Ghana and Germany.

5.3 Conclusions

This study aimed to investigate the mediating effect of social media usage on the trust creation potential of crisis communication in national emergency situations, comparing two antithetical national settings – Ghana and Germany. The general aim was to analyse if social media is a bridge or amplifier in the trust building process between institutions and the general public in the communication of crisis messages. One of the major lessons learned from the results of the study is the continuing significance of crisis communication for the prediction of public trust, across the national contexts. This is consistent with previous literature about how transparent, timely, and authoritative communication in crises can have an impact on public trust in institutions (Bannor et al., 2017; Schröder et al., 2025). In both Ghana and Germany the study establishes that where communication is seen as credible and trustworthy, it correlates positively with higher public trust. This highlights the need for institutional readiness to create compelling and comprehensible crisis messages.

However, the mediating mechanism of social media was less important than originally hypothesized. While increased social media use was positively associated with exposure to crisis messages, it did not mediate the relationship between institutional communication and trust in a statistically significant manner. This implies that social media is used as a source for spreading, but not changing or augmenting, the impact of crisis information in a trust-building way. It debunks the dogma that more social media engagement equals more institutional legitimacy and indicates that the credibility of the source is still a determinant of the message over a medium (Heyerdahl et al., 2023).

Additionally, although it was anticipated that cross-national differences in digital environments as well as governance structures would importantly determine the relationship dynamics, the results revealed no significant differences in the mediating effects between Ghana and Germany. This was surprising, as the countries' digital access levels, cultural norms, and

baseline trust numbers differed significantly. The absence of full moderated mediation indicates that the role of social media as a functional factor appears structurally similar (though voluntarily engaged with more or less) irrespective of context use. This speaks to the internationality of some digital behaviours and suggests the necessity for overarching principles for digital crisis communication (Owusu-Nimo & Boshoff, 2017).

Lastly, the moderation analysis showed a differential role of social media in the trust formation process. There was also slight moderation in social media use in Ghana implying that depending on the prevailing situations, the functioning of the crisis communication on trust of the public could be enhanced or weakened by social media use. This is especially relevant in low-trust contexts, where digital platforms could act as a stopgap for institutional weakness, or indeed deepen suspicion. Very few such effects were observed in Germany, which indicates that in high-trust societies with strong institutions, social media is more passive with regard to trust (Godefroidt, Langer, & Meuleman, 2016).

In sum, this study suggests not only that crisis communication is at the heart of public trust in crisis contexts, but also that social media does not revolutionize but reinforces these dynamics. Its effect depends on how the technology is used by the individual country, what the trust level of institutions are. Thus, policy makers and communication experts must not regard social media as an alternative to credibility communication but a strategic platform to extend the institutional reach mainly in high risky and digital emerging scenarios. The realization is critical as communities increasingly leverage digital platforms in the response to public health crises, natural disasters, and other national emergencies.

5.4 Recommendations

Based on the results and implications of this study, several recommendations were provided as practical implications to policy-makers, institutional communication officers, and scholars seeking for improvement of the usage of social media in crisis communication — in order to enhance public trust – particularly in government-led crises. The presented recommendations, however, are valid for high-trust (Germany) as well as low-trust (Ghana) settings, taking into consideration the cultural peculiarities that shape digital abilities. First of all, both the Ghana government and the German public health agencies should certainly pay the most attention to the quality and clarity of their crisis communication, no matter in which media. The findings suggest that though social media use does not serve mediates in and of itself, the credibility of institutional communication continues to be the best predictor of public trust. Therefore, institutions such as the Ghana Health Service and Germany’s Robert Koch Institute ought to keep up spending on clear, factual, and timely content delivery on all traditional and digital media to retain the public’s trust (Bannor, Bawole, & Asare, 2017; Schröder, Brück, & Guenther, 2025).

Moreover, tailored digital media literacy initiatives should be established, especially in Ghana, where uneven degrees of digital literacy might influence how users understand crisis messages on WhatsApp or Facebook. This is important to mitigating misinformation, improving understanding and to prevent social media from being a conduit for confusion, or distrust, in times of crisis (Nutsugah et al., 2024). These initiatives should enable citizens to get the information they need — and to ask questions themselves about who is providing it, why, and how accurate it is. Platform-specific tactics should also be used in response to the type of user in the region. For example, as WhatsApp dominates in Ghana, and Twitter/X and institutional pages in Germany, communication strategies need to conform to these patterns both to reach

at scale and to generate engagement. Governments should work with tech companies to promote algorithmic amplification of verified crisis messages, especially at peak crisis times (Mensah, 2024).

It is also advisable to actively engage with credible non-governmental stakeholders - like local influencers, doctors and community leaders – in official communication approaches on a crisis. Ghana's marginal mitigating effect suggests that social media can still influence trust effects when messages are seen as culturally relevant and independently based. Through these intermediaries, governments can legitimize their crisis messages outside the institutions (Dzisah, 2018). Additionally, researchers and communicators need to constantly monitor the trust landscape. The non-significant mediation and moderation effects obtained in this study do not suggest that digital media are not influential, but rather that the effects are either mediated, context dependent, or time specific. Longitudinal studies and sentiment analysis in real-time would allow us to better understand how trust evolves over longer periods of crisis, such as in pandemics or after geopolitical shocks. (Heyerdahl et al., 2023).

Finally, ethic boards and institutions should create guidelines for culturally and linguistically inclusive crisis surveys and communication. This includes pretesting of messages and survey instruments in local languages such as Twi (in Ghana) and German (in Germany) to enhance semantic clarity especially when measuring sensitive issues like trust and institutional perception (Owusu-Nimo & Boshoff, 2017). In conclusion, despite being a very different form of reputation management, social media's direct impact on public trust in crisis communication is perhaps more modest in this study than its strategic value. Hence a targeted, culturally sensitive and audience-specific approach is necessary in inducing an effective response from it in developing and developed contexts.

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