

Role of Digital Communication in Disaster and Emergency Situations

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Abstract: *This researcher examined the role of digital communication in disaster management in Nigeria, with objectives to investigate the role of digital communication in disaster management, identify challenges faced by organizations and governments in developing effective communication plans, and explore the use of social media and other digital platforms in disaster communication. The study is grounded in the Crisis Communication Theory, which posits that effective crisis communication is critical to maintaining organizational reputation and trust. A library research methodology was employed, involving a thorough examination and synthesis of existing literature. The findings reveal that digital communication plays a crucial role in disaster management in Nigeria, but its effectiveness is hindered by challenges such as resource constraints, lack of expertise, and cultural complexities. The study also highlights the underutilization of social media and digital platforms in disaster communication. The conclusion is that digital communication is vital for effective disaster management in Nigeria, and recommendations are made for government bodies, NGOs, and media organizations to invest in training programs, develop culturally sensitive communication plans, and leverage social media and digital platforms more effectively.*

Keywords: Digital communication, disaster management, Nigeria, crisis communication theory, social media.

Introduction

Disasters and emergency situations have become an unfortunate reality in today's world, with the potential to cause widespread devastation and disrupt the lives of individuals and communities. The importance of effective communication in mitigating the impact of such disasters cannot be overstated. As noted by Okoro & Oyero (2020), digital communication plays a crucial role in disaster management, as it enables the dissemination of critical information to affected communities, facilitates the coordination of relief efforts, and helps to mitigate the psychological trauma associated with disaster experiences. In the context of Nigeria, where natural disasters such as floods and wildfires are becoming increasingly frequent, the need for digital communication in disaster management is particularly pressing.

Effective digital communication in disaster and emergency situations requires a proactive approach, which involves the anticipation of potential risks, the development of contingency plans, and the establishment of communication channels that can be activated in the event of a disaster (Asemah-Ibrahim, Nwaoboli & Asemah, 2022a). As argued by Adeniyi & Oyinlola (2022), digital communication in disaster management involves not only the dissemination of information but also the creation of a narrative that can help to shape public perception and facilitate a coordinated response to the disaster. In Nigeria, where the effectiveness of disaster response efforts is often hampered by inadequate communication, the development of digital communication plans that take into account the country's unique cultural and socio-political context is essential.

The role of digital communication in disaster and emergency situations extends beyond the immediate response to the disaster, as it also plays a critical role in the recovery and rebuilding process (Asemah-Ibrahim, Nwaoboli & Asemah, 2022b). As noted by Egbewole & Oyebisi (2023), digital communication can help to facilitate the rebuilding of affected communities by promoting a sense of hope and resilience, fostering a sense of community and social cohesion, and providing critical information about available resources and support services. In Nigeria, where the recovery and rebuilding process is often slow and challenging, the effective use of digital communication can make a significant difference in the lives of affected individuals and communities.

Furthermore, digital communication in disaster and emergency situations requires the use of multiple channels and platforms to reach diverse audiences and ensure that critical information is disseminated effectively. Oladele & Oyinlola (2022) argued that the use of social media, in particular, has become increasingly important in disaster communication, as it provides a platform for real-time information dissemination, facilitates the coordination of relief efforts, and enables the creation of online communities that can provide emotional support and solidarity. In Nigeria, where social media has become an increasingly important channel for communication, the effective use of social media in disaster communication can help to save lives, reduce the impact of disasters, and promote a more coordinated and effective response to emergency situations. On this premise, this researcher examines the roles of digital communication in disaster and emergency situations.

Statement of the Problem

Despite the importance of digital communication in disaster and emergency situations, many organisations and governments in Nigeria still struggle to develop effective communication plans that can mitigate the impact of disasters. As noted by Adeniyi & Oyinlola (2022), the lack of effective communication planning has been identified as a major challenge in disaster management in Nigeria. Furthermore, the use of social media and other digital platforms in disaster communication is still in its infancy in Nigeria,

with many organisations and governments failing to harness the potential of these platforms to disseminate critical information and coordinate relief efforts (Oladele & Oyinlola, 2022). This practical gap highlights the need for a study that can provide insights into the role of digital communication in disaster and emergency situations in Nigeria.

Moreover, while there is a growing body of research on the role of digital communication in disaster management globally, there is a dearth of research on this topic in the Nigerian context. As noted by Egbewole & Oyeibisi (2023), most of the existing research on disaster communication in Nigeria has focused on the role of traditional media, with little attention paid to the potential of digital platforms in disaster communication. Furthermore, there is a need for research that can provide insights into the specific challenges and opportunities of digital communication in disaster management in Nigeria, taking into account the country's unique cultural, socio-political, and economic context (Okoro & Oyero, 2020). This research gap highlights the need for a study that can contribute to the development of a framework for digital communication in disaster management that is tailored to the Nigerian context and as such, the need for this study.

Research Objectives

The objectives of this study are to:

1. Examine the role of digital communication in disaster management
2. Identify the challenges faced by organisations in developing effective digital communication plans for disaster management.
3. Investigate how effective the use of social media and other digital platforms in disaster and emergency situations

Theoretical Framework

Crisis Communication Theory

The Crisis Communication Theory, developed by Timothy Coombs, has its origin in the field of public relations and crisis management (Asemah & Nkwam-Uwaoma, 2017). According to Coombs (2012), the theory emerged as a response to the growing need for organisations to effectively communicate with their stakeholders during times of crisis. As noted by Barton (2001), the theory draws on concepts from psychology, sociology, and communication studies to provide a framework for understanding how organisations can maintain reputation and trust during crises.

The tenets of the Crisis Communication Theory revolve around the idea that effective crisis communication is critical to maintaining organisational reputation and trust (Asemah, Nwammuo & Nkwam-Uwaoma, 2017). As argued by Coombs (2012), the theory posits that organisations should adopt a proactive approach to crisis communication, which involves being transparent, timely, and honest in their communication efforts. Furthermore, the theory emphasises the importance of empathy and compassion in crisis communication, as noted by Ulmer (2011). Through acknowledging the victims of a crisis and showing empathy, organisations can demonstrate their commitment to social responsibility and maintain a positive reputation.

Despite its widespread adoption, the Crisis Communication Theory has faced criticisms for its limitations. As noted by Taylor & Perry (2005), the theory has been criticised for its focus on organisational reputation and trust, rather than the needs and concerns of stakeholders. Furthermore, the theory has been criticised for its lack of consideration for the cultural and contextual factors that can influence crisis communication, as argued by Gonzalez-Herrero & Pratt (2015). These criticisms highlight the need for a more nuanced and context-sensitive approach to crisis communication.

The Crisis Communication Theory has numerous applications in the current study, particularly in the context of disaster management in Nigeria. As noted by Yaroson & Asemah (2008), the theory can be applied to develop effective crisis communication strategies that take into account the unique cultural and contextual factors of the Nigerian context. Furthermore, the theory can be used to analyze the communication efforts of organisations and governments in Nigeria during times of disaster, and to identify areas for improvement. By applying the Crisis Communication Theory, the current study provides insights into the role of digital communication in disaster management in Nigeria, and contributes to the development of effective crisis communication strategies that can mitigate the impact of disasters.

Conceptual Review

Digital Communication

Digital communication is a crucial concept in the context of disaster and emergency situations. According to Hallahan (2020), digital communication refers to the deliberate and systematic planning, implementation, and evaluation of communication efforts using digital platforms to achieve specific goals and objectives. This definition highlights the importance of a planned and intentional approach to communication, particularly in high-stakes situations such as disasters and emergencies. As noted by Nwaoboli, Uchenunu & Asemah (2024a, 2024b, 2024c), digital communication involves the use of various online channels and tactics to convey messages, build relationships, and influence public perception.

Another definition of digital communication, provided by Smith & Stephens (2023), emphasizes its focus on achieving long-term goals and building sustainable relationships through digital means. According to this definition, digital communication involves using online platforms to create and maintain connections, build trust and credibility, and ultimately achieve organizational goals. This definition underscores the importance of fostering relationships and trust in the context of disaster and emergency situations, where effective digital communication can be a matter of life and death. As noted by Taylor & Perry (2020), digital communication can help organizations build trust and credibility with their stakeholders, which is critical in times of crisis.

In contrast, a third definition of digital communication, provided by Coombs & Holladay (2022), emphasizes its focus on crisis communication and reputation management in the digital realm. According to this definition, digital communication involves

using online tools and platforms to protect and maintain an organization's reputation, particularly during times of crisis or emergency. This definition highlights the importance of reputation management in the context of disaster and emergency situations, where an organization's reputation can be severely damaged by ineffective digital communication. As noted by Gonzales-Herrero & Pratt (2020), digital communication can help organizations maintain their reputation and build trust with their stakeholders, even in the face of crisis or disaster.

Disaster and Emergency Situations

Disaster and emergency situations, on the other hand, refer to unexpected events or situations that pose a threat to human life, property, or the environment. According to the Umar (2020), disasters can be caused by natural hazards such as earthquakes, hurricanes, or floods, or by human-induced hazards such as industrial accidents or terrorism. As noted by Kapucu & Liou (2022), disasters and emergencies require a rapid and effective response to minimize harm and protect human life.

Rodriguez (2023) notes that disasters and emergencies are events or situations that disrupt the normal functioning of a community or society, causing harm to individuals, property, and the environment. This definition highlights the importance of considering the social and community impacts of disasters and emergencies, rather than just focusing on the physical or economic impacts. As noted by Quarantelli (2020), disasters and emergencies can have a profound impact on communities and societies, requiring a comprehensive and coordinated response.

Perry & Lindell (2022) see disasters and emergencies as events or situations that are unexpected and unpredictable, requiring a rapid and flexible response to minimise harm. This definition highlights the importance of being prepared for the unexpected, and having plans and systems in place to respond to disasters and emergencies. As noted by Drabek (2020), disasters and emergencies require a proactive and adaptable approach, rather than just reacting to events as they unfold.

Literature Review

Role of Digital Communication in Disaster Management in Nigeria

Digital communication plays a crucial role in disaster management in Nigeria, enabling organizations and governments to effectively communicate with stakeholders, respond to emergencies, and mitigate the impact of disasters. According to Okoro & Oyero (2020), digital communication is essential in disaster management, as it helps to create awareness, build trust, and facilitate the flow of information between stakeholders. In Nigeria, where disasters such as floods, wildfires, and epidemics are common, digital communication can help save lives, reduce the impact of disasters, and promote sustainable development.

Effective digital communication in disaster management involves using various online channels and tactics to convey messages, build relationships, and influence public perception. As noted by Kim & Lee (2022), digital communication in disaster management requires a proactive approach, which involves anticipating potential risks, developing contingency plans, and establishing communication channels that can be activated in the event of a disaster. In Nigeria, organizations and governments can leverage digital communication to develop effective disaster management plans, conduct public awareness campaigns, and provide critical information to stakeholders during emergencies.

Digital communication can also promote transparency and accountability in disaster management in Nigeria. According to Taylor & Perry (2020), digital communication can help organizations and governments build trust with stakeholders, demonstrate their commitment to social responsibility, and provide accurate and timely information during emergencies. In Nigeria, where corruption and lack of transparency are major challenges in disaster management, digital communication can help promote accountability and ensure that resources are used effectively.

Furthermore, digital communication can facilitate collaboration and coordination among stakeholders in disaster management in Nigeria. As noted by Kapucu & Liou (2022), digital communication can help organizations and governments build partnerships, share resources, and coordinate their response to emergencies. In Nigeria, where disaster management often involves multiple stakeholders, digital communication can help facilitate collaboration and ensure that resources are used effectively (Nwammuo, Edegoh & Asemah, 2014).

Challenges Faced by Organizations and Governments in Developing Effective Communication Plans for Disaster Management

Organizations and governments in Nigeria face several challenges in developing effective communication plans for disaster management. One of the major challenges is the lack of resources, including funding, personnel, and equipment. According to Egbewole & Oyebisi (2023), the lack of resources can limit the ability of organizations and governments to develop effective communication plans, conduct public awareness campaigns, and provide critical information to stakeholders during emergencies.

Another challenge faced by organizations and governments in Nigeria is the lack of expertise and training in disaster communication. As noted by Oladele & Oyinlola (2022), disaster communication requires specialized skills and knowledge, including the ability to develop effective communication plans, conduct risk assessments, and provide critical information to stakeholders during emergencies. In Nigeria, where disaster communication is often handled by personnel without specialized training, the lack of expertise can limit the effectiveness of communication plans.

Furthermore, organizations and governments in Nigeria also face challenges related to the cultural and socio-political context of the country. According to Adeniyi & Oyinlola (2022), the cultural and socio-political context of Nigeria can affect how people respond to disasters, access information, and interact with organizations and governments. In Nigeria, with over 250 ethnic

groups and a complex socio-political landscape, organizations and governments must consider the cultural and socio-political context when developing communication plans.

Additionally, organizations and governments in Nigeria face challenges related to the use of technology in disaster communication. According to Gonzales-Herrero & Pratt (2020), the use of technology, including social media and other digital platforms, can be effective in disaster communication, but it also requires specialized skills and knowledge. In Nigeria, where the use of technology is still evolving, organizations and governments must invest in training and capacity-building programs to develop the skills and knowledge needed to use technology effectively in disaster communication (Asemah, 2014).

Empirical Review

Okoro & Oyero (2020) conducted a study on the role of digital communication in disaster management in Nigeria, focusing on the 2018 Osun State flood disaster. The objectives of the study were to examine the digital communication strategies used by the Osun State government during the flood disaster and to assess the effectiveness of these strategies in mitigating the impact of the disaster. The study was guided by the crisis communication theory, which posits that effective communication is critical in crisis situations. The study used a qualitative approach, with data collected through in-depth interviews with government officials and residents affected by the flood. The findings revealed that the Osun State government used a range of digital communication strategies, including social media, radio, and television, to inform residents during the flood disaster. However, the study also found that these strategies were not always effective and that there were significant gaps in communication between the government and residents. The study recommended that the government should develop a comprehensive digital communication plan that considers the needs and concerns of residents. This study relates to the current study in that it highlights the importance of digital communication in disaster management. However, it differs from the current study in that it focuses on a specific disaster event, whereas the current study takes a more general approach.

Adeniyi & Oyinlola (2022) conducted a study on the role of social media in disaster communication in Nigeria. The objectives of the study were to examine the use of social media by disaster management agencies in Nigeria and to assess the effectiveness of social media in communicating disaster risk information to the public. The study was guided by the uses and gratifications theory, which posits that people use media to satisfy their needs. The study utilized a quantitative approach, collecting data through a survey of disaster management agencies and residents in Nigeria. The findings revealed that social media is widely used by disaster management agencies, but significant gaps remain in the use of social media for effective disaster communication. The study recommended that disaster management agencies develop social media strategies that consider the needs and concerns of residents. This study relates to the current study by highlighting the importance of social media in disaster communication. However, it differs in that it focuses specifically on social media, while the current study takes a more comprehensive approach to digital communication.

Egbewole & Oyeibisi (2023) conducted a study on the role of digital communication in disaster recovery and rebuilding in Nigeria. The objectives of the study were to examine the digital communication strategies used by government agencies and non-governmental organizations (NGOs) during the recovery and rebuilding phase of disaster management, and to assess the effectiveness of these strategies in promoting disaster resilience and sustainable development. The study was guided by the social constructivist theory, which posits that reality is socially constructed through communication. The study employed a qualitative approach, collecting data through in-depth interviews with government officials, NGO representatives, and residents affected by disasters. The findings revealed that digital communication plays a critical role in disaster recovery and rebuilding, but significant gaps exist in communication between government agencies, NGOs, and residents. The study recommended that government agencies and NGOs develop comprehensive digital communication plans that take into account the needs and concerns of residents. This study relates to the current study in that it highlights the importance of digital communication in disaster management. However, it differs from the current study by focusing specifically on the recovery and rebuilding phase of disaster management, whereas the current study takes a more comprehensive approach to digital communication.

Methodology

This study utilises library research as its primary methodology. According to Asemah & Nwaoboli (2024), this entails the thorough examination and synthesis of existing literature, including scholarly articles, books, and reputable online resources. This approach was selected to comprehensively investigate the significance of strategic communication in disaster and emergency situations. Through focusing on library research, the study draws upon a wide array of established theories, case studies, and empirical evidence, facilitating a nuanced understanding of how effective communication strategies can enhance disaster preparedness and response efforts. This method not only enriches the analysis but also contributes to the development of informed recommendations for practitioners in the field.

Discussion of Findings

The findings of this study highlight the critical role of strategic communication in disaster management within the Nigerian context, aligning closely with the established research objectives. The first objective was to examine the role of strategic communication in disaster management in Nigeria. The analysis reveals that effective strategic communication is essential for fostering awareness, building trust, and facilitating information flow among stakeholders during emergencies. As noted by Okoro & Oyero (2020), strategic communication not only aids in disseminating crucial information but also plays a pivotal role in shaping public perception and guiding community responses to disasters. This aligns with the Crisis Communication Theory proposed by

Coombs (2012), which emphasizes the need for organizations to maintain transparency and credibility in their communication efforts during crises. By adopting a proactive approach to communication, organizations can significantly enhance their reputation and trustworthiness, which are vital during disaster scenarios.

Furthermore, the study identifies that strategic communication is imperative for the coordination of relief efforts. In Nigeria, where disasters such as floods and wildfires are prevalent, the ability to convey timely and accurate information can make a substantial difference in the effectiveness of response measures. For instance, Kim & Lee (2022) argue that proactive communication strategies, which include anticipating potential risks and developing contingency plans, are crucial for effective disaster management. This study corroborates their findings, as it was evident that establishing pre-existing communication channels allows for rapid dissemination of information during emergencies, thereby reducing confusion and misinformation.

Transitioning to the second objective, which aimed to identify the challenges faced by organizations and governments in developing effective communication plans, the study revealed significant obstacles rooted in resource constraints, lack of expertise, and cultural complexities. The findings indicate that inadequate funding, personnel shortages, and limited equipment severely hamper the development and implementation of effective communication strategies (Egbewole & Oyebisi, 2023). This aligns with the observations of Adeniyi & Oyinlola (2022), who highlight that the lack of specialized training in disaster communication further exacerbates these challenges. In Nigeria, many personnel tasked with communicating during disasters often lack the necessary skills to craft effective messages or engage with the community appropriately, resulting in ineffective communication that does not resonate with diverse audiences.

Moreover, the cultural and socio-political context in Nigeria presents unique challenges that must be addressed in communication planning. The nation's diverse ethnic groups and complex socio-political landscape can influence how communities perceive and respond to disaster-related communication. As noted by Oladele & Oyinlola (2022), failing to consider these factors can lead to misunderstandings and mistrust, which can undermine the effectiveness of disaster communication efforts. This finding underscores the need for tailored communication strategies that reflect the local context and engage communities meaningfully.

The third objective of this study focused on investigating the use of social media and other digital platforms in disaster communication. The findings reveal that while there is significant potential for these platforms to enhance communication efforts, their current application in Nigeria remains underdeveloped. According to Gonzalez-Herrero & Pratt (2020), social media can serve as a powerful tool for real-time information dissemination and community engagement. However, the study highlights that many organizations in Nigeria have not fully harnessed these platforms to their advantage. The youth's increasing engagement with social media in Nigeria presents an opportunity for organizations to leverage these channels for effective communication during disasters.

Additionally, the findings indicate that the integration of technology in disaster communication requires specialized skills and knowledge, which many organizations currently lack. Therefore, it is critical for government and non-governmental organizations to invest in training programs that enhance digital literacy and communication skills among disaster response teams. This investment can empower organizations to utilize social media effectively, fostering greater community involvement and a more coordinated response to emergencies.

Conclusion and Recommendations

This researcher concludes that strategic communication is vital for effective disaster management in Nigeria, significantly impacting awareness, trust-building, and coordination during emergencies. The analysis reveals that while strategic communication plays a crucial role in mitigating the effects of disasters, numerous challenges hinder its effectiveness, including resource constraints, lack of expertise, and cultural complexities. Furthermore, the underutilization of social media and digital platforms in disaster communication highlights the need for targeted strategies to engage communities effectively. Addressing these issues is essential for enhancing disaster preparedness and response efforts in Nigeria. Based on the findings, it is recommended that:

1. Government bodies invest in comprehensive training programs for disaster communication personnel through digital communication. This investment should focus on developing the skills necessary for effective message crafting, community engagement, and the use of digital platforms.
2. Non-Governmental Organizations (NGOs) should prioritize the development of culturally sensitive communication plans that consider Nigeria's diverse ethnic and socio-political landscape.
3. Media organizations must leverage social media and digital platforms more effectively to disseminate critical information during emergencies. This includes creating real-time updates, engaging with audiences through interactive content, and fostering online communities for support and information sharing.

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