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Research Article

Examining the Effectiveness of Crisis Communication Strategies in Informal Settlements: The Case of City of Windhoek

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Abstract

Effective crisis communication is a critical component of inclusive urban governance, particularly in cities characterised by rapid urbanisation, historical inequality, and infrastructural strain. In Windhoek, Namibia, recurring disruptions to essential services such as water and electricity disproportionately affect residents of informal settlements, where limited resources heighten. Despite a democratic local governance framework established after independence, the City continues to face challenges related to delayed, fragmented, and insufficient communication during service disruptions, undermining public trust and crisis preparedness.

This study examines the effectiveness of municipal crisis communication strategies in the City of Windhoek, with specific focus on informal settlements. Grounded in Crisis and Emergency Risk Communication (CERC) theory and Participatory Communication Theory, the research analyses how transparency, institutional coordination, communication channels, and public participation influence residents' perceptions, trust, and satisfaction with municipal governance. A positivist paradigm guides the study employing a mixed-methods approach that combines a descriptive cross-sectional survey with semi-structured interviews. Data are collected from residents in selected informal and low-income areas using stratified random sampling and analysed through statistical techniques and thematics analysis.

The study seeks to contribute to the limited literature on municipal crisis communication in Namibia by reframing communication as a core governance function rather than a secondary

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administrative task. By foregrounding the experiences of residents in informal settlements, the research aims to identify structural and inclusive crisis communication, thereby strengthening public trust, accountability, and urban resilience in the City of Windhoek.

Keywords: Criss communication, communication strategies, communication mangement, audience

1. Introduction

Effective, accountable, and inclusive urban governance depends heavily on crisis communication. Crisis communication refers to the process of sharing factual information with the public regarding unforeseen emergency that is beyond the control of the organisation, involves the organisation directly, and demands a prompt and effective response. (Centers for Disease Control and Prevention, 2018a). In the context of City of Windhoek, particularly within informal settlements influenced by socio-economic inequality, infrastructural strain, and rapid population growth, effective crisis communication is critical for governance. It is essential for handling emergencies, delivering swift, trustworthy information to vulnerable communities, as communication often represents the initial and most immediate action taken by public authorities in response to crisis (Centers for Disease Control and Prevention, 2018; Karuaihe & Wandschneider, 2018).

Across many African cities, urbanisation has occurred at a pace that exceeds capacity of municipal infrastructure and governance (Simon & Pieterse, 2015). Consequently, local authorities are frequently confronted with recurring service disruptions, informal settlement expansion, and heightened vulnerability among low-income populations. In such contexts, the effectiveness of crisis communication directly influences residents' ability to prepare for, respond to, and recover from disruptions to essential services as water and electricity. When communication is delayed, unclear, or inaccessible, the consequences extend beyond inconvenience and may escalate into public health risks, safety concerns, and heightened distrust in public institutions (Centers for Disease Control and Prevention, 2018).

This study is situated within the context of Namibia's capital city, Windhoek, where historical legacies of colonialism and apartheid continue to shape spatial organisation, infrastructure, provision and governance practices. Despite Namibia's transition to democratic governance following independence in 1990, deep-seated inequalities persist, particularly within informal settlements that remain inadequately serviced and marginalised from formal urban planning processes. The City of Windhoek (CoW), as the primary authority, carries the responsibility of

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ensuring reliable service delivery and effective communication with residents. However, recurrent complaints regarding delayed notifications of power outages, water shortages, and other service interruptions suggest that the municipality's crisis communication system remains insufficient, particularly for residents in informal sentiment.

The motivation for this study emerges from observable patterns of delayed inconsistent, or fragmented municipal communication during service disruption. Electricity outages and water shortages significantly disrupt daily life, especially in low-income in informal settlements where households lack alternative resources or resilient infrastructure. Without electricity, residents are unable to cook, refrigerate food, access lighting after dark, or ensure personal safety in poorly lit environments. Similarly, water shortages compromise hygiene sanitation, food preparation, and overall health. When such disruptions occur without adequate advance notice or clear guidance from municipal authorities, residents are forced into reactive coping strategies, including the use of candles unsafe water sources or informal alternatives that may expose households to health and safety risks. These challenges are most acute in informal settlements, where infrastructure is often fragile, and connections are informal or temporary, and emergency preparedness options are limited. Crucially, the vulnerabilities experienced by residents in these areas are not the result of individual choice but are rooted in a long history of spatial exclusion, forced displacement, and inequitable urban development

Understanding crisis communication in CoW therefore requires situating contemporary governance practices within their historical, political, and socio-spatial contexts. The city's urban form and institutional arrangements were profoundly shaped by colonial and apartheid policies that prioritised yeah racial segregation and unequal access to services. These policies are not structured where are not only structured where people lived but also determined whose voices were heard and whose needs were prioritised in municipal decision-making. Communication between authorities and marginalised communities was historically characterised by exclusion, opacity, and unilateral decision making. Although Namibia's post-independence reforms sought to dismantle these systems, the persistence of informal settlements and service delivery disparities suggests that the legacy of exclusion continues to influence municipal communication practices.

The Local Authorities Act (1992) established a post-independence framework that defined the duties, powers, and obligations of municipalities, officially designating the CoW as a local authority mandated to provide services, regulate development, and facilitate communication

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with its citizens. While the Act promotes democratic governance, the City of Windhoek continues to contend with longstanding disparities that undermine municipal capacity and the effectiveness of crisis communication.

Existing studies indicate that the CoW 's crisis communication strategies are often fragmented and reactive rather than proactive. Delays in information dissemination, unclear lines of responsibility between municipal and national authorities, and limited engagement with affected communities undermine the municipality's ability to respond effectively during crises (Karuaihe & Wandschneider, 2018). These shortcomings not only hinder practical responses efforts but also erodes public trust, particularly among residents who already experience structural disadvantage. This concern is reflected in the findings of Tjipetekera, et al. (2025), who state that 9.7% of the residents indicated a need to establish trust between residents and the CoW, underscoring the importance of mutual engagement for shared benefits.

Considering this context, this mini thesis pursues two aims: first, to analyse the effectiveness of the CoW's crisis communication strategies during essential service disruptions, particularly in informal settlements; and second, to highlight the role of timely, transparent, and actionable communication as a fundamental aspect inclusive governance. This analysis seeks to add to wider discussions on urban resilience, social equity, and the importance of communication in building trust between municipalities and the communities they serve.

1.1. Background of the study

The background of this study situates municipal crisis communication within the broader historical, political, and urban governance context of Namibia, with particular focus on the CoW. Namibia's urban landscape has been profoundly shaped by colonial and apartheid-era planning systems that institutionalised racial segregation and spatial inequality. Windhoek, as the country's political and economic centre, reflects these historical legacies through its uneven spatial development, persistent service delivery challenges, and unequal access to infrastructure.

During the apartheid period, forced removals and racially segregated planning resulted in the establishment of peripheral residential areas such as Katutura and Khomasdal, which were deliberately underdeveloped compared to historically white urban centres. Scholars such as Melber (2016; 2020) demonstrate that these spatial injustices did not end with independence but continue to influence contemporary governance challenges, particularly in informal

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settlements where residents experience limited access to services and weak institutional engagement.

Following independence in 1990, Namibia introduced reforms aimed at strengthening local governance, most notably through the Local Authorities Act (1992). This framework mandated municipalities to operate transparently, ensure public participation, and deliver services equitably. However, despite these formal commitments, the lived experiences of many urban residents suggest that municipal communication, especially during crises such as water shortage, electricity outages, and infrastructural failures, remain inadequate and inconsistent.

Crisis communication is a critical governance function in urban contexts where residents rely on timely, accurate information to make daily function decisions. In Windhoek, Wandschneider and Karuaihe (2018) contend that factors such as decentralisation, administrative ability, and institutional cooperation greatly influence the ways municipalities handle service delivery and engage with citizens. Despite decentralisation reforms, there are still discrepancies in the allocation of responsibilities between national and local authorities, frequently leading to blame-shifting, ambiguous accountability, and inconsistent messaging in times of crisis (Wandschneider & Karuaihe, 2018). Circle back and find source

Rapid urbanisation further compounds these challenges. The population of the city has swiftly increased, exceeding 500,000 residents, with approximately 28.4% experiencing multidimensional poverty (UNICEF 2021). As Simon and Pieterse (2015) argue, African cities face the dual challenge of addressing historical inequalities while managing contemporary urban growth. In this context, effective crisis communication becomes essential not only for service delivery but also for sustaining public trust and social cohesion.

1.2. Statement of the problem

Despite the implementation of a democratic local governance system framework via the Local Authorities Act in 1992, the CoW continues still faces challenges with effective crisis communication, particularly amid disruptions to essential services such as water and electricity outages. Although the Act emphasises transparency, accountability, and reliable communication between local authorities and communities, municipal crisis communication remains insufficient and often inconsistent.

Karuaihe and Wandschneider (2018) highlight that the CoW's crisis communication is marked by delays in delivering essential information, ambiguous coordination between the municipal

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council and the central government, and fragmented information channels. These issues often lead to public confusion and increased distrust responsibility for service failures is shifted between two governing bodies. Restricted opportunities for citizen involvement, insufficient feedback mechanisms, and a general absence of transparency further diminish the municipality's capacity to effectively communicate in times of crisis.

Melber (2016, 2020) emphasises that administrative systems during colonial and apartheid times were designed around racial exclusion and the selective spread of information. The failure to effectively communicate service availability, schedules, and disruptions disproportionately affects residents of informal settlements, reinforcing spatial and social inequalities. As a result, many residents view municipal communication as unreliable, exclusionary, and reactive rather than proactive.

With Windhoek's ongoing rapid population increase, the lack of timely, transparent, and coordinated crisis communication increasingly threatens public safety, social cohesion, and urban resilience. An in-depth analysis of the CoW's crisis communication strategies is therefore necessary, particularly from the perspectives of residents living in informal settlements who face a disproportionate impact from service interruptions.

1.3. Research Questions & Objectives

Formulating research questions is crucial to defining a precise investigative path, guaranteeing consistency among the study's objective, theoretical framework and methodological strategy (Hammond & Wellington, 2012; Mishra & Alok, 2022). In Windhoek, the difficulties of crisis communication are influenced by historical patterns of inequality, institutional fragmentation, and rapid urbanisation (Kohima et al., 2023; Melber, 2016; Simon & Pieterse, 2015). The study addresses the following research questions:

1. In what way has CoW's strategy for crisis communication evolved since gaining independence?
2. What are the primary barriers to efficient crisis communication between the municipality and urban residents?
3. How does poor coordination between the central government and municipal council affect crises response?
4. How does the absence of transparency affect public perceptions regarding the CoW?
5. What measures can improve proactive, inclusive, responsive and accessible municipal communication?

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The research objectives are:

1. To examine the progression of municipal crisis communication in Windhoek after gaining independence.
2. To recognise significant structural and political barriers to efficient crisis communication during service disruptions.
3. To evaluate the impact of institutional coordination on urban governance and crisis response.
4. To explore how municipal transparency shapes public trust and contentment with service provision.
5. To propose strategies for strengthening the CoW's crisis communication systems.

1.4. Hypothesis

Guided by crisis communication theory and participatory communication principles, this study tests these following hypotheses:

1. If the CoW's crisis communication is not transparent and poorly schedules, then its overall efficacy will be obstructed.
2. If there is poor coordination between municipal and national government bodies, then public trust and service responsiveness in the CoW will be affected.
3. If residents have limited access to timely information, then their trust in the municipality will be lower.
4. If citizens perceive CoW as transparent, then they are more inclined to consider its crisis response effective.
5. If residents in informal settlements receive communication from the municipality more frequently, then their overall satisfaction with municipal services will increase.
6. If residents belong to different age groups or have different educational backgrounds, then there will be significant differences exists in satisfaction with crisis communication.
7. If the municipality utilises digital communication tools, then residents' awareness of service interruption will increase.
8. If the CoW lacks feedback mechanisms, then residents' readiness to collaborate during crises will be hindered.
9. If residents perceive governing bodies as accountable, then intergovernmental conflict will be lower.

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10. If households have a history of service disruption, then they are more likely to view municipal communication as feeble.

1.5. Significance, Delimitation and Limitations of the research

The significance of this study contributes to the limited body of literature on municipal crisis communication in Namibia. It addresses a gap in literature that often prioritises infrastructure and service access over communication as a governance function. Practically, the findings can inform policy reforms, enhance accountability, and improve trust between municipalities and residents.

The delimitation of the study focuses on crisis communication in the CoW, particularly regarding service disruptions affecting informal settlements. It does not cover other municipalities or broader crises such as pandemics or natural disasters.

The limitations of the study are the reliance on secondary data limits access to real-time resident experiences, limited transparency in intergovernmental coordination and the evolving nature of digital communication present analytical constraints.

1.6. Definition of key terms

The key terms of this research are as follows:

1. Crisis Communication: A multidisciplinary are of study that encompasses a variety of practices by which organisations communicate before, during and after crises to bring about a level of normal operations ((Spradley, 2017)).
2. Municipality: A local government unit responsible for administration and delivery of public services within a specific urban area (Walliman, 2021, p. 7).
3. Urban Governance: The systems, processes, and institutions through which urban areas are managed and policies implemented, often involving multiple stakeholders (Simon & Pieterse, 2015, p. 3).
4. Spatial Inequality: Disparities in access to infrastructure, services, and opportunities based on geographical location, often reflecting historical exclusion (Kanbur & Venable, 2005, as cited in (Abdulai, 2017)
5. Transparency: The openness and accessibility of information and decisions made by public authorities, encouraging accountability. (Pandey & Pandey, 2015, p.7).
6. Public Trust: The level of confidence citizens have in the integrity, competence, and responsiveness of government institutions (Hammond & Wellington, 2012, p.23).

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7. Intergovernmental Coordination: The collaboration between different levels of government in delivering services and responding to the public (Mishra & Alok, 2022, p.20).

8. Perception Survey: A research tool used to collect opinions or attitudes from individuals about a specific subject or institution (Walliman, 2021, p. 95).

9. Accountability: The obligation of government institutions to explain their actions and accept responsibility for their performance (Theofanidis & Fountouki, 2018, p. 157).

10. Decentralisation: Seeks to transfer political, administrative, legislative, financial and planning authority from central government to regional and local authority councils (Ileka, 2018)

11. Communication Channels: The tools and platforms used by the municipality to reach the public (Rajasekar & Verma, 2013, p. 302).

12. Community Engagement: Include members of your community and local leaders in planning for and responding to an emergency (Centers for Disease Control and Prevention, 2018, p.5)

13. Information Access: The ability of citizens to obtain relevant, timely and accurate information regarding public services and decisions (Svensson, 2021, p. 10).

14. Blame-Shifting: The act of transferring responsibility for failures or problems from one level of government to another to avoid accountability (Karuaihe & Wandschneider, 2018, p. 12).

15. Service Delivery: The provision of basic public services such as water, electricity, waste management and housing by the municipality (Mishra & Alok, 2022, p. 15).

CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1. Introduction

This chapter examines current academic literature related to municipal governance, urban inequality, crisis communication, participatory planning and public engagement in urban settings, concentrating particularly on the CoW. The literature review aims to place the study withing current academic discussions, recognise prevailing theoretical and empirical trends and point out gaps that warrant the current research. Based on peer-reviewed journal articles, policy papers, and postgraduate studies carried out in Namibia and similar Global South settings, this chapter explores the influence of historical planning legacies, governance structures, and communication methods on public trust involvement in urban crises.

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Urban governance in Windhoek cannot comprehend without considering Namibia's colonial and apartheid past. Research consistently indicates that planning systems from the apartheid era reinforced spatial segregation, economic disparity, and governance practices of exclusion that continue in urban management after gaining independence. Tjipetekera, Gumbo, and Yankson (2025) contend that Windhoek adopted a strict planning system meant to benefit a minority elite, leading to the ongoing exclusion of low-income and informal settlements inhabitants from significant involvement in municipal decision-making.

Likewise, Mitlin and Müller (2004) note that reforms after independence have faced challenges in breaking down entrenched institutional cultures, especially those favouring technocratic decision-making instead of citizen participation. These structural limitations persist in shaping how the municipality communicates and manages crises such as service interruptions, conflicts over land allocation, and the expansion of informal settlements.

2.1.1. Municipal Governance, Participation and Service Delivery

The enduring nature of these historical legacies fosters public distrust and fragile state-citizen connections. Melber (2020) argues that post-colonial governance changes in Namibia frequently prioritise policy adherence over relational accountability, reducing chances for dialogic interaction between local officials and community members.

A key these throughout the literature is the importance of participation in effective municipal governance. Participation in community is constitutionally significant, and a prevailing theme in the literature emphasises the importance of participation for effective municipal governance. Community involvement is constitutionally and legally integrated into Namibia's decentralisation framework; however, research shows a continuous disparity between policy goals and actual implementation. The Local Governance Framework (2023) emphasises that although municipalities are required to involve communities in planning and service delivery, participation tends to be more symbolic than meaningful. Consultation processes are often held after major decisions have been made, reducing residents' impact on result.

Recent research on Windhoek's informal settlements indicates that residents perceive municipal interaction as sporadic and responsive, especially during service interruptions. The research Assessing Community Participation and Municipal Operations (2024) demonstrates that participation methods like public gathering and ward discussions are irregularly carried out and have low attendance, primarily because of inadequate notifications, language

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obstacles, and minimal feedback channels. Consequently, residents frequently view municipal involvement as performance rather than empowering.

The literature additionally indicates that low participation hampers service delivery results. When communities are left out of decision-making, municipal actions do not align with local needs, resulting in resistance, non-compliance, and distrust. This pattern is particularly evident in informal settlements, where the provision of services is already limited by infrastructure shortcomings. Researchers in governance assert that inclusive communication should not be seen as an optional administrative task but rather as essential for sustainable service provision in marginalised urban settings.

2.1.2. Crisis Communication in Urban and Municipal Contexts

Crisis communication research highlights that prompt, clear, and coordinated messaging is crucial during emergencies and service interruptions. The CERC framework developed by Reynolds and Seeger serves as a fundamental model, emphasising communication phases such as preparedness, response, and recovery. Nevertheless, a substantial portion of the current crisis communication research stems from Global North settings, emphasising health emergencies, natural disasters, or corporate crises.

In urban areas of Africa, crisis communication is frequently complicated by weak infrastructure, political division, and history of mistrust. Recent studies on urban governance in Africa suggest that municipalities often focus more on operational responses than on communication strategies, considering information dissemination as less important. This trend is noticeable in Windhoek, where disruptions such as water rationing and power outages are frequently announced late or inconsistently.

Karuaihe and Wandschneider's (2018) results continue to hold significant importance, highlighting delayed announcements, vague messaging, and intergovernmental blame-shifting as critical flaws in City of Windhoek's crisis communication framework. Recent studies on municipal governance validate that these problems continue, especially during extended service interruptions. Significantly, research shows that ineffective crisis communication worsens vulnerability by hindering households from adequately preparing for disruptions, this amplifying socio-economic disparities.

2.1.3. Communication, Trust, and Public Participation

Trust appears as a frequent analytical perspective in governance and communication research. Researchers frequently associate clear communication with the legitimacy of institutions and

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the cooperation of the public. Hammond and Wellington (2012) content that trust is established not merely by the results of service delivery but also through the manner in which information is communicated and decisions are articulated.

In City of Windhoek, historical experiences of exclusion and authoritarian rude significantly influence public trust. Recent research indicates that people living in informal settlements often view delayed or insufficient communication as deliberate neglect instead pf a failure in administration. The perception is strengthened when communication methods prioritise formal neighbourhoods with superior digital access, causing residents of informal settlements to depend on word-of-mouth or informal networks.

Recent studies on participatory governance indicate that trust swiftly declines when municipalities neglect to offer feedback after community consultations. Lack of follow-up communication indicates a lack of respect for citizen feedback, diminishing future involvement. This situation becomes especially concerning during emergencies, as trust influences whether community members follow local government orders, like water limitations or evaluation alerts.

2.1.4. Digital Communication and Access Inequalities

Digital communication platforms are increasingly highlighted as answers to urban communication issues. City websites, social media and text messages alerts are commonly viewed as affordable means for quick information sharing. Nevertheless, the literature warns against presuming universal accessibility or efficacy.

Research centred on City of Windhoek shows a proportional digital divide. Residents in informal settlements encounter obstacles like restricted internet access, expensive data, and low digital literacy, while those in middle- and high-income areas typically receive prompt updates via online platforms. The report on Limited Access to Services for the Urban Poor in Windhoek (2023) indicates that dependence on digital platforms without additional offline approaches strengthens existing disparities.

As a result, researchers support hybrid communication frameworks that combine digital technologies with community-oriented methods such as local committees, radio transmissions, and personal interactions. Theorists of participatory communication stress that technology ought to enhance, not substitute, dialogue and local knowledge systems.

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2.1.5. Institutional Coordination and Governance Fragmentation

A key theme in the literature is the connection between institutional collaboration and the effectiveness of communication. In Namibia, urban governance consists of various levels of authority, incorporating both national ministries and local councils. Although decentralisation seeks to enhance responsiveness, studies indicate that ambiguous role definitions frequently result in disjointed communication.

The Local Governance (2023) report emphasises that during service interruptions, contradictory messages from various government bodies lead to confusion and weaken accountability. This disunity is especially harmful in times of crisis when residents need clear and reliable information. Researchers content that without unified communication; even well-designed interventions struggle to gain public trust or compliance.

The literature indicates that the failures in crisis communication in City of Windhoek are not just communicative but also structural, based on governance frameworks that hinder decision-making and accountability.

2.1.6. Research Gaps

Although there is an increasing body of literature regarding urban governance and participation in City of Windhoek, numerous significant gaps persist.

To begin with, there exists a restricted amount or empirical studies concentrating specifically on crisis communication at the local level in City of Windhoek. The majority of studies focus on governance, service delivery, or participation in general, without investigating how communication operates during times of disruption. Secondly, although institutional analysed highlight structural flaws within the municipality, the viewpoints of residents, especially those living in informal settlements, are not sufficiently represented. Current research seldom focuses on the lived experiences of crisis communication, resulting in a lack of insight into how communication failures are interpreted and managed withing communities. Third, there is a lack of integration of organised crisis communication frameworks such as CERC within evaluations of municipal governance of Namibia. Consequently, communication methods are rarely assessed using recognised theoretical standards. Fourth, inclusivity is still poorly conceptualised in research on municipal communication. Limited research examines if communication strategies effectively consider linguistic diversity, literacy levels, and disparities in technology access. Ultimately, there is scan investigation in the communication

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effects of intergovernmental disconnections between central and local authorities, despite its clear influence crisis response and accountability.

2.2. Theoretical framework

This section connects the examines literature with the theoretical framework directing the research, specifically Crisis and Emergency Risk Communication (CERC) Theory and Participatory Communication Theory. The amalgamation of these theories offers a framework for analysing how crisis communication operates within the context of Windhoek's municipal governance, especially amid historical disparities, fragmented institutions, and restricted citizen engagement. By placing current research within these theoretical frameworks, the review shows the deficiencies in municipal communication may be viewed not just as administrative issues but as a broader systemic failure in risk communication and participatory governance.

2.1.1. Crisis Communication in Municipal Governance through the Lens of CERC Theory

Crisis and Emergency Risk Communication (CERC) Theory, developed by Barbara Reynolds and Matthew Seeger, highlights that successful crisis communication occurs in five stages: pre-crisis, initial event, resolution, and evaluation (Spradley, 2017). At the heart of this dream are the values of timeliness, transparency, credibility, coordination, and public trust. The research on City of Windhoek administration shows ongoing departures from these principles, especially during crises provision.

Research conducted by Karuaihe and Wandschneider (2018) indicates that the City of Windhoek often struggles during the pre-crisis and initial event phases, where readiness and early warning are essential. Residents frequently obtain late or insufficient information about water shortages and power outages, restricting their capacity to prepare or react suitably. CERC theory suggests that these delays increase uncertainty and anxiety, particularly in at-risk unities, which subsequently diminishes the effectiveness of crisis response.

Moreover, the maintenance phase of CERC, which demands ongoing updates and reassurance, is poorly executed in City of Windhoek. The literature shows that after initial announcements, subsequent communication is irregular, causing residents to feel uncertain about timelines, progress, or solutions. This opposes Reynolds and Seeger claim that ongoing communication is crucial for upholding public trust and adherence throughout extended crises.

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Resolution and evaluation phases are similarly missing from local governance practices. Limited research required structured assessments or public input mechanisms implemented by the City of Windhoek. This exclusion bolsters views of institution unclear practices and diminished chances of growth and enhancement, a worry constantly emphasised in urban governance studies.

2.1.2. Historical and Structural Barriers to Effective Crisis Communication

The literature strongly suggests that current crisis communication challenges in City of Windhoek cannot be understood without acknowledging historical and structural factors. Scholars such as Melber (2016; 2020) argue that colonial and apartheid-era governance established exclusionary communication systems designed to control that inform marginalised populations. These systems priorities authority and enhancement over dialogue and transparency.

From a CERC viewpoint, these historical legacies diminish the trustworthiness of communicators. Crisis communication theory emphasises that trust builds over time and is rooted in history; institutions with past exclusion experiences encounter more difficulties in convincing the public during crises. In Windhoek, coerced displacements, divided city development, and limited access to information have fostered lasting mistrust toward local government, especially in informal housing areas.

Kohima et al. (2023) characterise Windhoek as an urban area embodying “one city, two systems” marked by unequal access to infrastructure, services, and information. This spatial disparity directly influences the results of crisis communication. Residents in formal areas usual get prompt updates through digital platforms, whereas those in informal settlements rely on informal networks or late notification. CERC theory indicates that differing messages among groups heighten confusion and diminish efforts for collective risk reduction.

2.1.3. Participatory Communication Theory and Community Engagement

CERC theory explains the operation of effective communication during emergencies by encouraging timely, precise and actionable information to diminish uncertainty and build public trust and protective measures (Centers for Disease Control and Prevention, 2018a). Participatory Communication Theory emphasises the active engagement of stakeholders, particularly impacted communities, in planning, decision-making and information exchange rather than treating audiences as passive receivers of messages (Hulatt, 2024). Participatory Communication highlights a transition from traditional hierarchical structure to a more

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democratic and cooperative methods of communication (Hulatt, 2024). It requires spaces that are open, inclusive, and conducive to exchange diverse voices ensuring that community need inform both the content and the procedure. It also promotes collective understanding and collective result by allowing stakeholders to actively participate in the flow and exchange of information (Hulatt, 2024).

In the City of Windhoek, the application of participatory communication principles may be understood as an evolving and institutionally supported process rather than an immediately achievable outcome. As argued by Cornwell (2011, as cited in Ileka, 2018, pp. 6-7), meaningful community participation is complex and requires sustained commitment, trust, equity, and responsiveness from local authorities, alongside the gradual development of participatory capacities among citizens. Within this framework, participatory communication depends on transparency, access to information and inclusive decision-making structures that enable ongoing interaction between municipalities and residents. Participation therefore supports continuous interaction between municipalities and residents, strengthening shared responsibility and informed engagement overtime.

Participatory communication theory challenges the persistence of top-down information distribution models, which can continue to influence municipal crisis communication practices. When residents are primarily informed after decisions are made, opportunities for dialogue, feedback and co-creation of responses may be limited. This stands in contract to the theory's emphasis on bilateral information flows and feedback mechanism, which support adaptive, responsive, and community-aligned communication strategies (Hulatt, 2024; Ileka, 2018)

Empirical literature further suggest that restricted feedback systems can influence residents' readiness to cooperate during service interruptions. When community members perceive exclusion from communication processes, their readiness to follow municipal orders, like water restrictions or temporary relocation, diminishes. Participatory theory offers a valuable perspective for comprehending how communication issues in crisis situations can evolve into more extensive governance problems, rather than simply reflecting informational deficiencies.

2.1.4. Crisis Communication, Trust, and Public Perception

CERC and Participatory Communication Theory both highlight trust as a crucial outcome of successful communication. Hammond and Wellington (2012) claim that trust is cultivated not only via results but also through open processes and considerate interaction.

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Available studies indicate that public confidence in the CoW remains fragile, particularly among residents living in information settlements. Research indicates that delayed announcements, contradictory statements from local and national officials, and the lack of feedback systems bolster vies of ineptitude and disregard. From a CERC perspective, these problems diminish the municipality's credibility as a crisis communicator, as trust and clarity are central to effective emergency response. From a participatory communication viewpoint, these perceptions further point to constrained inclusion in governance and decision-making processes.

Empirical evidence reinforces this relationship between communication practices and trust. Ileka (2018) reports that declining confidence in municipal service delivery discourages community participation, with some residents disengaging from public forums after perceiving their inputs as disregarded. Similarly, Tjipetekera et al. (2025) found that 27.8% of residents strongly emphasised the need for greater community inclusion in development residents and municipality as essential for effective engagement. These figures illustrate how much crisis communication practices shape public perceptions and directly influence trust in municipal governance.

2.1.5. Digital Communication and Theoretical Implications

Digital platforms are increasing recognised in the literature as important tools for expanding participation and enhancing interaction between authorities and communities. Participatory communication theory emphasises that digital and media technologies can facilitate inclusion when they are utilised to actively engage audiences, enable dialogue, and appreciate community contributions, instead of functioning as unidirectional means of information distribution (Hulatt, 2024). From this viewpoint, digital communication possessed considerate potential for enhancing collaboration and empowering when combined with participatory approaches.

The CERC theory perceptive highlights the importance of selecting communication channels that are appropriate for different audiences and of disseminating messages through multiple, accessible media (Centers for Disease Control and Prevention, 2018b). Within the framework of CoW, dependence on digital platforms could advantage residents who have dependable internet connection while others might encounter access challenges.

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This underscores a common theoretical implication in both frameworks: digital communication improves crisis communication only when integrated into inclusive, multi-channel strategies that consider audience diversity and accessibility.

2.1.6. Institutional Coordination and Theoretical Alignment

Effective crisis communication, according to CERC theory, relies heavily on institutional coordination. Disjointed communication between local and national authorities in Windhoek results in mixed messaging and the shifting of blame, as noted by Karuaihe and Wandschneider (2018). Participatory communication theory critiques this fragmentation by emphasising how institutional conflict undermines accountability and public trust. When citizens encounter contradictory information from various government tiers, they find it difficult to pinpoint accountable parties, undermining the legitimacy of governance.

2.3. Conclusion

This examined literature and theoretical viewpoints collectively confirm that crisis communication is an essential element of urban governance, especially in cities marked by research highlights that prompt, clear and organised information sharing is crucial for minimising uncertainty, managing risks, and maintaining public confidence during interruptions in service. The research by Reynolds and Seeger emphasises that poor communication exacerbates public fear and diminishes the legitimacy of institutions, particularly when communities rely on local authorities for handling everyday dangers. Literature on urban governance places these communication issues within the wider framework of African cities, where swift urbanisation frequently surpasses municipal capabilities. Academics like Simon and Pieterse contend that municipalities need to tackle both past spatial inequities and current growth demands, turning crisis communication into a continual governance requirement instead of an occasional task. In City of Windhoek, these challenges are exacerbated by planning legacies from the apartheid era that still affect access to services, institutional interactions, and public views of the municipality, as noted by Melber.

Empirical research centred on the City of Windhoek shows ongoing shortcomings in municipal communication, such as delays, inconsistent messaging, and inadequate intergovernmental collaboration. Research conducted by Karuaihe and Wandschneider reveals that these deficiencies primarily of marginalisation. Communication for development feelings of mistrust and perceptions of marginalisation. Communication for development theory,

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especially as defined by Servaes, emphasises the importance of participatory, two-way communication that appreciated feedback and community participation.

The literature and theoretical framework highlight an important research gap: although service delivery issues in City of Windhoek are thoroughly documented, crisis communication is still inadequately studied as a governance process. This research addresses that gap by framing crisis communication as an essential perspective for comprehending urban governance, institutional accountability, and public trust in the CoW.

CHAPTER THREE: RESEARCH METHODS AND PROCEDURES

3.1. Introduction

Research methodology denotes the structured framework that directs the planning, implementation, and evaluation of a research project. Mishra and Alok (2022) describe research methodology as a "framework for the research procedure, detailing the rationale for the techniques employed to gather and evaluate data" It offers the justification for choosing research designs, methods, sampling strategies and analytical instruments, guaranteeing that the research us methodologically valid, clear and reproducible.

This chapter details the methodological approaches used to access the efficacy of crisis communication strategies in informal settlements in the City of Windhoek. Due to the intricacy of crisis communication and its connection and its connection to public trust, service delivery, and governance, a meticulously organised approach is crucial.

3.2. Research Paradigm: Positivist

The research is based on the positivist research paradigm. Positivism contends that reality is objective, quantifiable, and exists separately from the researcher, asserting that knowledge can be developed through methodical observation and empirical evaluation. Kivunja (2018) states that positivist research is associated with deductive reasoning, testing hypotheses, and employing measurable data to identify patterns and connections.

This framework is especially appropriate for this research as it aims to evaluate established hypotheses concerning the effectiveness of crisis communication, as well as transparency, trust, and coordination among governance structures. The implementation of structured questionnaires and statistical analysis demonstrates the positivist focus on objectivity, reliability, and generalisability.

Nonetheless, acknowledging the constraints of depending only on numerical data, the research also indicates qualitative components to enhance understanding. Although the prevailing

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paradigm stays positivist, incorporating qualitative insights facilitates a more detailed comprehension of residents lived experiences, without undermining the research's overall empirical focus.

3.3. Research Approach: Mixed Methods

The research utilises a mixed method approach, integrating quantitative and qualitative techniques. Mishra and Alok (2022) state that mixed methods research allows researchers to grasp the complexity of social phenomena by combining numerical data with contextual and experiential knowledge. This method is especially important in governance and communication research, where human perceptions meet institutional processes.

The quantitative aspect includes structured questionnaires aimed to gather quantifiable data regarding residents' understanding of crisis communication, trust in the City of Windhoek, satisfaction with service communication, and information accessibility. This information facilitates hypotheses testing and statistical examination of association among variables.

The qualitative element includes semi-structured interviews that enable participants to expand on their experiences, views, and difficulties concerning municipal communication. These interviews often depth and context, aiding in the interpretation and explanation of quantitative results. Triangulating data sources boosts the study's credibility by enhancing the overall validity and analytical richness of the study.

3.4. Research Design: Descriptive Cross-Sectional Survey Approach

This research employs a descriptive cross-sectional survey approach. Walliman (2021) states that descriptive research designs serve to systemically outline the characteristics, attitudes, perceptions, and experiences of a population without altering variables. A cross-sectional design entails gathering data at one specific moment, which allows for the analysis of current conditions and the relationships between variables as they exist.

Opting for a descriptive cross-sectional design is suitable for this research for multiple reasons. Initially, the study aims to understand residents' views, experiences, and attitudes regarding municipal crisis communication during service interruptions, instead of determining causality through experimental methods. Additionally, the design enables the analysis of several factors, including transparency, trust, communication channels, and service responsiveness, over a comparatively breed period. Third, cross-sectional surveys prove to be especially beneficial in urban governance research, given that population dynamics and infrastructure conditions are in a state of continuous flux (Creswell, 2014).

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Utilising this design, the research can pinpoint patterns and connections between crisis communication practices and public perceptions in informal settlements, offering empirical evidence to tackle the research questions and evaluate the suggested hypotheses.

3.5. Research Setting

This research will take place in chosen informal settlements and low-income housing regions in the City of Windhoek. These consist of Wanaheda and Havana, mainly informational settlements, along with Khomasdal and Otjomuise, which are known established low-income urban regions. These locations were chosen due to their regular service interruptions and their representation of communities heavily impacted by issues in municipal crisis communication. Furthermore, these areas illustrate Windhoek's spatial inequity and socio-economic variety, making them suitable for analysing communication differences in various urban environments.

3.6. Study Population

The study's target population includes adult individuals aged 18 and older residing in the chosen informal settlements and low-income neighbourhoods. These residents are directly influenced by the provision of municipal services and crisis communication water, electricity, sanitation, and housing. Pandey and Pandey (2015) emphasise the necessity of precisely delineating the study population to guarantee accurate sampling and significant data gathering. Restricting the participants to adults guarantees that they can give informed consent and express their experiences and views on municipal communication.

3.7. Sampling Procedures and Sample Size

The research will employ stratified random sampling to choose participants. Svensson (2021) states that stratified sampling improves representativeness by segmenting the population into separate subgroups (strata) and randomly choosing participants from every stratum. In this research, strata are determined by residential location to guarantee proportional representation from every chosen area.

The sample size was determined using the Yamane formula, expressed as: n=N/(1+N(〖e)〗 ^2) (Singh & Masuku, 2014). This equation facilitates determining a suitable sample size (n) by considering the population size (N) and a defined margin of error. In this study, the accessible population consisted of 25 residents (N=25), and a margin of error of 5% (0.05) was applied. Substituting these values into the formula: n=25/(1+25(〖0.05〗 ^2))=25/(1+0.0625)=25/1.0625=23.5

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The calculated sample size was approximately 24 respondents. However, all 25 eligible participants were included in the study, resulting in a census of accessible population. This approach ensured maximum participants and allowed for a comprehensive descrptive analysis of residents' perception of municipal crisis communication within the selected areas.

3.8. Research Instruments/Data Collection Tools

Various data gathering instruments will be utilised to facilitate the mixed-methods strategy:

1. Structured Questionnaires

Closed-ended surveys will be utilised to gather quantitative information gathering information regarding demographics, knowledge of crisis communication, trust in the City of Windhoek, satisfaction with communication methods, and the communication channels employed.

2. Semi-Structured Interviews

Open-ended interviews will be carried out to be delve deeper into participants' experiences and perceptions. This enables participants to communicate issues that might not be addressed by predetermined answer choices.

3. Data Analysis Software

Statistical tools will be utilised to examine quantitative data, whereas thematic analysis programs will be used to detect patterns and themes in qualitative data.

Rajasekar and Verma (2013) emphasise that employing various tools enhances methodological robustness and enable researchers to obtain both extensive and detailed data.

3.9. Data analysis

Data analysis involves a structured approach to arranging, understanding, and extracting insights from gathered data to answer the research questions and goals for a study. Due to the mixed-methods approach utilised in this study, techniques for analysing both quantitative and qualitative data were used to guarantee a thorough investigation of crisis communication practices in City of Windhoek. Employing various analytical methods improved depth, validity and credibility of the results (Mishra & Alok, 2022).

Quantitative data collected from structured questionnaires were coded and analysed using statistical programs. Before analysis, the data were examined for thoroughness and uniformity to reduce mistakes. Descriptive statistics such as frequencies, percentages, means, and standard deviation were utilised to summarise the demographics traits of respondents and detail patterns concerning awareness of service disruptions, availability of municipal communication, confidence in the City of Windhoek, and contentment with crisis

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communication. These descriptive metrics offered insight into overall patterns and viewpoints among residents.

Qualitative data obtained from semi-structures interviews will be examined using thematic analysis. Interview recordings or message exchange will be transcribed word for word, and the data were thoroughly examined to ensure a good understanding of participants' answers. Preliminary codes will be created to identify repeating concepts related to crisis communication experiences, institutional collaboration, transparency, and community involvement. Subsequently, these codes will be consolidated into more general themes that highlighted significant challenges and viewpoints related to municipal crisis communication. Thematic analysis will be chosen due to its capacity for a thorough investigation of participants lived experiences and its ability to offer contextual insights into intricate social phenomena (Theofanidis & Fountouki, 2018).

Following separate analyses, quantitative and qualitative results will be combines during the interpretation phase. This triangulation allows for the comparison of statistical trends with residents' stories, thus enhancing the study's validity and providing a more detailed understanding of crisis communication in City of Windhoek. The integrated analysis guarantees that both quantifiable patterns and contextual experiences are recorded, enabling the results to directly respond to the study's research questions and goals and to support evidence-based conclusions and recommendations.

3.9. Pilot study

A preliminary study with 25-30 participants will be carried out before the primary data collection stage. As stated by Pandey and Pandey (2015), conducting pilot tests improves the validity and usability of research tools by uncovering ambiguities, inconsistencies, and operational difficulties.

The pilot study will evaluate the clarity of questionnaire items, the relevance of interview questions, and the anticipated duration needed for data collection. Input from the pilot study will be utilised to improve research instruments prior to full-scale execution.

3.10. Ethical considerations

Ethical factors are fundamental to this research. All participants will be made aware of the research's purpose, their right to exit at any time, and the voluntary aspect of their involvement. Consent will be obtained before collecting data. The identities of participation will be kept anonymous, and all information will be handled with confidentiality. Ethical

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approval will be sought from Namibia University of Science and Technology (NUST) prior to starting the study, these actions are in accordance with the ethical research standards described by Walliman (2021) and safeguard the rights and dignity of participants.

3.11. Validity and reliability

Validity and reliability are crucial for guaranteeing the trustworthiness and stability of research outcomes. Theofanidis and Fountouki (2018) highlight that validity pertains to the extent a study assesses what aims to assess, whereas reliability related to the stability of measurement over time and in different contexts.

The validity of this study is enhanced by employing structured questionnaires based on established communication frameworks and semi-structured interviews that reflect residents lived experiences. The mixed-methods approach enhances internal validity by enabling triangulation between quantitative survey data and qualitative interview findings. Following (Kakar et al., 2023) the credibility of the qualitative component is ensured through the use of thematic analysis, prolonged engagement with the data, and clear presentation of findings that accurately reflect participants' views. Transferability is supported through stratified random sampling, providing an in-depth contextual description of the study setting, and transparent reporting of methods allowing readers to assess the applicability of finding similar contexts. Reliability and trustworthiness are further reinforced through standardised data collection instruments, consistent coding procedures, and the use of recognised analytical software to ensure uniform data processing. Dependability is addressed by maintaining a clear audit trail, documenting the research process in detail, and applying consistent analytical procedures that allow the study to be replicated under similar conditions. Confirmability is ensured by grounding in interpretation directly in the data, utilising direct participant quotes, and reducing researcher bias through systematic analysis and methodological transparency. Together, these strategies ensure that both the quantitative and qualitative components of the study meet established standards of rigor, reliability, and trustworthiness.

CHAPTER FOUR: FINDINGS AND DISCUSSIONS

4.1. Introduction

This chapter presents and discusses the findings of the study on municipal crisis communication in the City of Windhoek, drawing on both quantitative and qualitative data collected through a structured questionnaire and semi-structured interviews. Guided by a mixed-methods approach, the chapter integrates descriptive and selected inferential statistical

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results from the survey with thematically analysed data to provide a comprehensive account of residents' perceptions and experiences of crisis communication during service disruptions. The quantitative findings are summarised using tables and figures to illustrate key patterns related to trust, transparency, accessibility of communication channels, and public cooperation, while the qualitative findings contribute contextual depth through emergent theses and illustrative participant quotations. Together, these findings are presented in a coherent manner aligned with the research questions, forming the basis for interpretation and critical discussion within the chapter.

4.2. Quantitative Findings

This section exhibits the quantitative finding obtained from the structured questionnaire administered to residents in selected areas of Windhoek. The analysis focuses on respondents' perceptions of municipal crisis communication channels, transparency, trust, and willingness to cooperate. Descriptive statistics are presented first, followed by cross-tabulation and chi-square analyses to examining relationships between selected variables.

4.2.1. Demographic Profile of Respondents

Demographic Variable	Frequency (n)	Percentage (%)
Age Group		
18-25	14	56
26-35	3	12
36-45	5	20
46-55	4	8
56+	2	4
Gender		
Man	5	20
Woman	19	76
Other	1	4
Highest Level of Education		
Less than secondary school	0	0
Secondary school	8	32
Vocational training	1	4
Bachelor's degree	6	24
Honours degree	8	32
Master's degree	2	8
Area of Residence		
Wanaheda	0	0
Havana	1	4
Khomasdal	9	36

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Otjomuise	3	12
Other	12	48
Duration of Residence		
Less than 1 year	0	0
1-5 years	8	32
6-10 years	4	16
More than 10 years	13	52

The demographic characteristics of the respondents are presented to provide context for the interpretation of the survey findings. Variables considered gender, age group, area of residence, and level of education. These characteristics are summarised using frequencies and percentages.

Table 4.1 presents the demographic distribution of the respondents. The results indicate that the sample comprised respondents from different residential areas within Windhoek, reflecting a rate of demographic backgrounds relevant to the study.

4.2.2. Descriptive Statistics of Key Variables

This subsection presents descriptive statistics related to respondents' perceptions of municipal crisis communication during service disruptions. The analysis is based on Likert scale items measuring agreement levels across key dimensions of crisis communication.

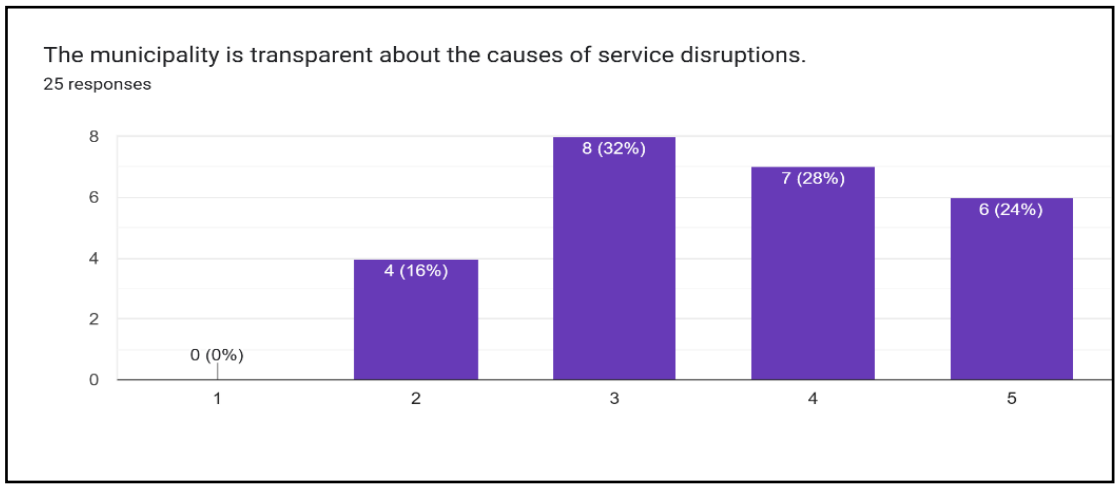

Figure 4.1: Transparency

Figure 4.1 showed that most respondents selected the neutral option (32%) or disagreed (52%, strongly disagree and disagree combined) that the municipality was transparent about the causes of service disruptions. Only 16% of respondents agreed with the statement.

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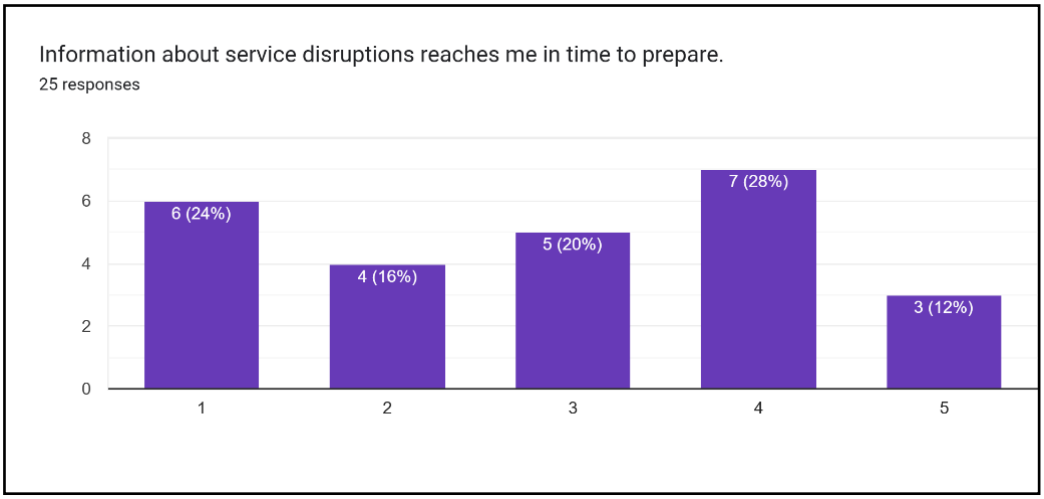

Figure 4.2: Timeliness of communication

Figure 4.2 indicated an equal proportion of respondents agreed or strongly agreed (40%) and disagreed or strongly disagreed (40%) that information about service disruptions reached them in time, while 20% selected the neutral option.

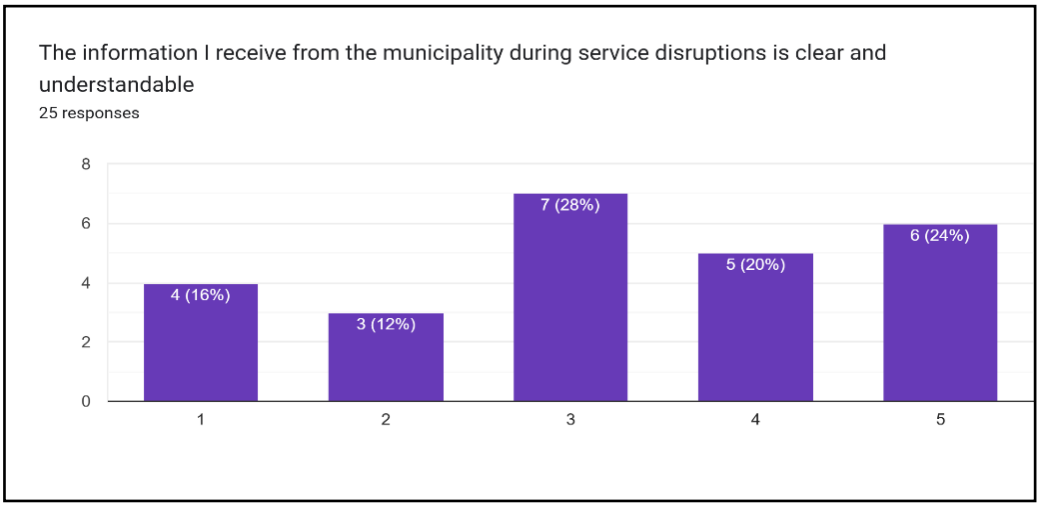

Figure 4.3: Clarity and understanding

Figure 4.3 showed that 44% of respondents agreed or strongly agreed that municipal communication during service disruptions was clear and understandable, 28% selected option, and 28% disagreed or strongly disagreed.

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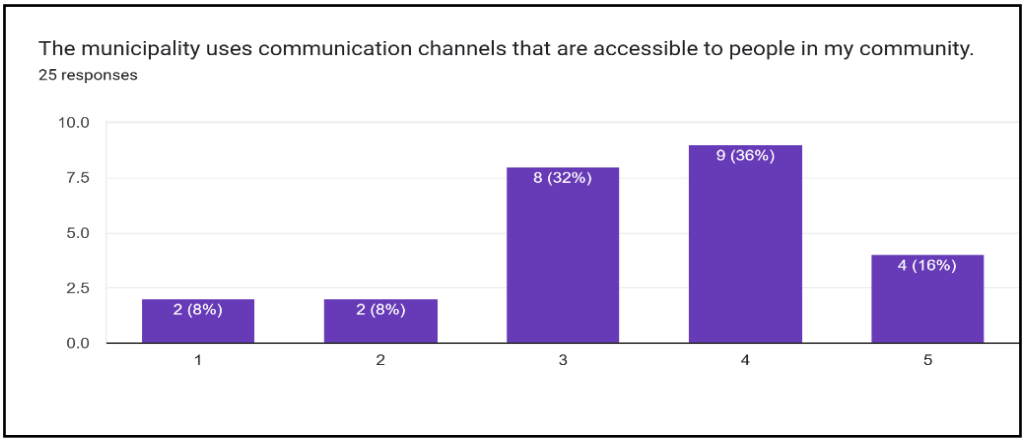

Figure 4.4: Accessibility of communication

Figure 4.4 indicated that more than half of the respondents (52%) agreed or strongly agreed that municipal communication channels were accessible, while 32% selected the neutral option and 16% disagreed or strongly disagreed.

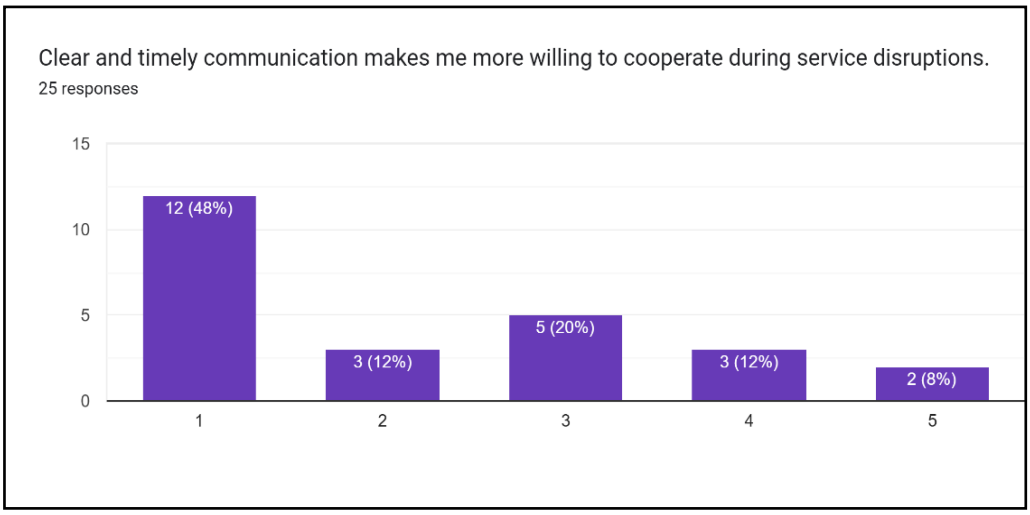

Figure 4.5: Willingness to cooperate

Figure 4.5 showed that a majority of respondents (60%) agreed or strongly agreed that clear and timely communication increased their willingness to cooperate during service disruptions, while 20% were neutral and 20% disagreed or strongly disagreed.

4.3. Qualitative Findings

This section presents the qualitative findings derived from the thematic analysis of semi-structured interviews carried out with residents from selected informal settlements in Windhoek. The qualitative findings are structured according to the key themes that arose from the interview data. Each theme is supported by selected participant quotes that illustrate common experiences and viewpoints.

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4.3.1. Timeliness

Participants consistently reported concerns regarding the timeliness of municipal communication during service disruptions. Many indicated that information was often provided after disruptions had already occurred, limiting residents' ability to prepare in advance. Delayed communication was described as a common experience across different areas. Some participants noted inconsistency in the timing of communication, with information sometimes shared before a disruption and at other times only released once the disruptions was already underway. As one participant stated, "in some instances they post it prior to when it actually happens and sometimes they post after it happens" (P2). Another participant similarly remarked that communication was "usually late" and that statements were often made "after the crisis has already began instead of potentially informing people ahead of time" (P5).

4.3.2. Transparency

Participants shared varied perceptions regarding the transparency of municipal communication during service disruptions. Some participants felt that communication was not transparent enough, whereas others acknowledged that efforts were made to explain the causes of disruptions. One participant stated, "I wouldn't call it transparent, but there is room for improvement", while also emphasising the importance of information reaching the majority of residents, as "no information is not important… it affects the next person" (P3). Other participants reported that when communication was received, it often included explanations for the disruptions. For example, one participant noted that the municipality sometimes explained the reasons for service interruptions, such as infrastructures, and indicated the affected areas (P4). These accounts reflected varied experiences regarding the level and consistency of transparency in municipal communication,

4.3.3. Clarity and Understanding

Participants generally described municipal communication as clear and easy to understand when messages were received. Several respondents indicated that information was conveyed in a concise manner and that key details were provided. One participant described the messages as "clear and concise" and stated that they "get the message across" (P1). Similatly, nother participants similarly reported that communication clearly indicated the location. Timing and cause of service interruptions, contributing to better understanding (P2). These

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responses suggested that clarity of messaging was not a major concern among particpants, although access to such information varied across communities.

4.3.4. Accessibility

Participants frequently highlighted challenges related to the accessibility of municipal communication channels. Several respondents indicated that communication relied heavily on platforms that were not easily accessible to residents of informal settlements. One participant noted that official websites, emails, social media, and printed notices were commonly used, despite limited internet access, lack of smartphones, and low literacy levels among many residents (P4). Another participant similarly reported that many residents lacked the necessary equipment to access the information being released, leading to exclusion from municipal communication processes (P5). These accounts reflected concerns that existing communication channels did not adequately reach all segments of the community.

4.3.5. Trust and Willingness to Cooperate

Participants linked municipal communication practices to residents' willingness to cooperate during service disruptions. Some respondents indicated that poor communication reduced motivation to cooperate, as residents felt that insufficient effort was made to provide timely services. One participant stated that residents may be "reluctant to want to cooperate" if communication efforts were perceived as inadequate (P2). Conversely, participants noted that effective communication encouraged cooperation and collective responsibility. One participant explained that transparency, speed and clarity fostered cooperation, while poor communication created uncertainty and resistance (P3). These accounts highlighted the perceived role of communication in shaping trust and cooperation during service disruptions.

4.4. Discussions

The findings indicate generally low levels of transparency in municipal crisis communication, with a substantial proportion of respondents expressing disagreement or neutrality regarding the extent to which CoW openly communicated the causes of service disruptions. Qualitative data reinforced this pattern, with participants describing transparency as inconsistent and, in some cases, insuffiecient, despite occasional efforts to explain the reasons of disruptions. These results align with previous research emphasising transparency as a critical component of effective crisis communication, particularly in local governance contexts, where liited transparency can undermine public confidence and reinforce perceptions of exclusion in marginalised communities (Creswell, 2014; Kivunja, 2018; ileka, 2018). In Windhoek, the

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mixed perceptions observed suggest that while information may sometimes be shared, it does not consistently meet residents' expectation for openness and accountability during crises.

Timeliness of communication also emerged as a significant concern. Survey responses indicated inconsistent experiences among residents, while interviews revealed that many received information only after service disruptions had already begun, reducing the practical usefulness of the communication. These findings are consistent with the literature highlighting timeliness as a core principle of crisis communication, as delayed messaging limits residents' ability to prepare and respond effectively (Centers for Disease Control and Prevention, 2018; Rajasekar & Verma, 2013). In urban governance, timey communication is closely linked to perceptions of institutional responsiveness, and delays may contribute to frustration and diminished trust in municipal authorities (Pandey & Pandey, 2015; Simon & Pieterse, 2015).

Clarity and understanding of municipal messages appeared relatively stronger. Respondents generally agreed that communication was clear and understandable, and qualitative accounts described messages as concise and straightforward. This suggests that the primary challenge lies less in message formulation and more in message delivery. Literature on crisis communication emphasises that clarity alone is insufficient if information does not reach the intended audience in a timely and accessible manner (Hulatt, 2024; Theofanidis & Fountouki, 2018). In this study, residents generally understood the messages, but inconsistencies in reach and timing limited overall effectiveness, demonstrating the interplay between clarity, accessibility, and timeliness in shaping perceptions of municipal communication.

Accessibility of communication channels was identified as a major issue. Survey finding indicated moderate agreement alongside high neutrality, reflecting uneven access to municipal communication platforms, while qualitative interviews highlighted that reliance on digital channels, such as social media, websites, and electronic notices, excluding many residents in informal settlements due to limited internet access, lack of devices, or low literacy levels. These findings echo prior scholarship that identifies digital divides as persistent barriers to inclusive communication in urban governance (Abdulai, 2017; Karuaihe & Wandschneider, 2018; Kohima et al., 2023). The evidence points to the need for multi-channel communication strategies that accommodate the realities of informal settlement residents, thereby promoting equitable access to critical information.

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Finally, the study revealed a strong relationship between communication practices and residents' willingness to cooperate during service interruptions. Most respondents agreed that clear and timely communication enhanced cooperation, a pattern strongly corroborated by qualitative data. Participants linked poor communication to frustration, resistance, and reduced trust, while effective communication was associated with collective responsibility and collaborative engagement. These findings align with existing research demonstrating that transparent, timely and inclusive communication fosters trust, compliance, and social cohesion, whereas inconsistent messaging can generate uncertainty, rumours, and resistance (Melber, 2016; Ronald et al., 2024; Ileka, 2018). Improving municipal crisis communication practices may enhance both service delivery outcomes and broader governance relationships between residents and local authorities.

Overall, the findings indicate that while municipal communication during service disruptions in the CoW demonstrates strengths in clarity of messaging, significant challenges remain in terms of transparency, timeliness, and accessibility. The integration of quantitative and qualitative results highlights that communication effectiveness is shaped not only by message content but also by delivery mechanisms and inclusivity. These findings underscore the importance of adopting comprehensive crisis communication strategies that address structural and contextual barriers faced by residents, particularly those in informal settlements.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusion

This study investigated the CoW's municipal crisis communication in selected informal settlements and low-income areas, focusing on transparency, timeliness, clarity, accessibility of communication channels, and residents' willingness to cooperate during service interruptions. Using a mixed-methods approach, combining quantitative survey data with qualitative interviews, the study provided a comprehensive understanding of resident's experiences and perceptions.

Findings reveal that the CoW's communication demonstrated both strengths and limitations. Quantitative results indicated relatively higher levels of agreement regarding the clarity and understandability of communication, suggesting that when messages were received, they were generally easy to comprehend. However, lower levels of agreement and high levels of neutrality were observed in relation to transparency and timeliness, pointing to uncertainty and dissatisfaction among residents. These patterns were reinforced by qualitative findings,

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which highlighted delayed communication, inconsistent information sharing, and limited explanations regarding the causes and duration of service disruptions.

Accessibility of communication channels emerged as a significant challenge across both data sets. While digital platforms were commonly used, many residents reported difficulties accessing information due to limited internet connectivity, lack of devices, or other structural constraints. As a result, some residents relied on informal networks to obtain information, increasing the risk of misinformation and uneven awareness. The study also found that communication practices played an important role in shaping residents' willingness to cooperate during service interruptions. Clear, timely, and transparent communication was associated with increased cooperation and trust, whereas poor communication contributed to frustration and resistance.

Overall, the study concludes that effective municipal crisis communication extends beyond message clarity and requires timely, transparent and inclusive strategies that considered the diverse realities of residents. While CoW has established communication mechanisms, inconsistencies in delivery and accessibility limit their effectiveness, particularly for residents of informal settlements. Addressing these challenges is essential for strengthening public trust, enhancing cooperation, and improving crisis response during service disruptions.

5.2. Recommendations

Based on the findings of the study, several recommendations are proposed to improve the crisis communication in the CoW. Firstly, the municipality should prioritise the timeliness pf communication by ensuring that residents are informed of service disruptions before they occur whenever possible. Early notification would allow residents to prepare and reduce uncertainty, particularly during prolonged disruptions. Clear timelines for updates should also be communicated to manage expectations and minimise frustration.

Secondly, efforts should be made to enhance transparency by consistently providing clear explanations regarding the causes, scope, and expected duration of service disruptions. Transparent communication can strengthen trust between the municipality and residents and reduce speculation or misinformation. Standardised communication guidelines could assist municipal officials in ensuring that essential information is shared consistently across different incidents and areas.

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Thirdly, the municipality should adopt a more inclusive, multi-channel communication strategy that goes beyond digital platforms. While social media and websites are efficient, they should be complemented with alternative channels such as community notice boards, local radio, SMS alerts, and collaboration with community leaders. Such an approach would improve access to information for residents who face digital barriers and ensure broader coverage across informal settlements.

Finally, strengthening communication practices should be viewed as a means of enhancing cooperation and community engagement during service interruptions. By fostering clear, timely, and accessible communication, the municipality can encourage collective responsibility and improve residents' willingness to cooperate with municipal interventions. Future research could build on this study by involving larger samples or examining the perspectives of municipal officials to gain a more comprehensive understanding of crisis communication challenges and opportunities within local government contexts.

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