

Management Information Systems and Organizational Resilience in Public Broadcasting Institutions within High-Insecurity Regions: Evidence from Radio and Television Stations in North-Eastern Nigeria

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Abstract- This study examined Management Information Systems (MIS) and organizational resilience in public broadcasting institutions within high-insecurity regions, using evidence from radio and television stations in North-Eastern Nigeria. The study investigated the effects of MIS on organizational resilience, its influence on crisis response and operational continuity, and the challenges affecting its effective implementation. A descriptive survey design was adopted, and data were collected from 200 respondents using a structured questionnaire. The findings revealed that MIS significantly enhances crisis response, communication efficiency, decision-making, operational continuity, and the dissemination of emergency information in broadcasting institutions. The study also showed that MIS strengthens institutional stability, improves real-time coordination, and supports continuous public awareness during crises. However, its effectiveness is constrained by inadequate funding, poor internet connectivity, obsolete ICT infrastructure, insecurity, and a shortage of skilled personnel. The study concludes that MIS is essential for strengthening organizational resilience in public broadcasting institutions, especially in volatile environments. It recommends increased investment in ICT infrastructure, capacity building, and improved policy support to enhance effective MIS implementation.

Index terms: Management Information Systems, Organizational Resilience, Public Broadcasting, High-insecurity regions.

I. INTRODUCTION

The increasing volatility of contemporary society has intensified the need for organizations to develop systems capable of surviving, adapting, and

functioning effectively amid persistent disruptions. Across the globe, institutions now operate within environments characterized by uncertainty, technological complexity, political instability, cyber threats, and security challenges. In such contexts, organizational resilience has emerged as a strategic necessity rather than a managerial luxury. Organizational resilience refers to the capacity of an organization to anticipate disruptions, absorb shocks, adapt to changing conditions, and recover swiftly while maintaining core functions and institutional relevance (Duchek, 2020; Parsons, 2010). For public broadcasting institutions, particularly those operating in fragile and conflict-prone environments, resilience is indispensable because their survival directly influences public communication, national security, democratic governance, and citizen awareness.

In Nigeria, the situation is especially critical in the North-Eastern region comprising states such as Borno, Adamawa, and Yobe, where prolonged insurgency, terrorism, communal conflicts, infrastructural destruction, and humanitarian crises have continued to threaten socio-economic and institutional stability. Public radio and television stations in these areas perform responsibilities that extend beyond conventional broadcasting. They serve as channels for emergency communication, the dissemination of security information, public sensitization, disaster response coordination, and the promotion of social cohesion. During periods of insecurity, citizens depend heavily on these media institutions for credible information, early warning

signals, and government directives. Consequently, any operational disruption affecting broadcasting institutions can significantly weaken crisis communication and public trust.

Despite their strategic importance, public broadcasting institutions in North-Eastern Nigeria continue to operate under extremely difficult conditions. Broadcasting facilities are frequently exposed to infrastructural damage, an unstable electricity supply, poor digital connectivity, vandalism, cyber vulnerabilities, and threats to personnel safety. These challenges are compounded by inadequate funding, obsolete technologies, weak institutional frameworks, and insufficient technical expertise. In many cases, the absence of efficient information management systems limits the ability of these institutions to respond promptly and effectively during crises. The resulting communication gaps often undermine operational continuity, reduce organizational adaptability, and weaken institutional resilience. Studies have shown that organizations operating in high-risk environments require robust information systems capable of supporting rapid decision-making, coordination, communication, and knowledge preservation during emergencies (Ashiru, Nakpodia, & You, 2023).

Management Information Systems (MIS) have increasingly become central to organizational survival and continuity in modern institutions. MIS refers to integrated technological and managerial systems designed to collect, process, store, and disseminate information needed for effective planning, coordination, decision-making, and control within organizations. In the broadcasting sector, MIS facilitates newsroom coordination, digital archiving, real-time information sharing, staff communication, audience management, security monitoring, and operational planning. Through improved information flow and technological integration, MIS enhances organizational responsiveness and institutional agility, particularly during periods of uncertainty and disruption. Contemporary studies affirm that digital technologies and information systems strengthen organizational resilience by improving communication efficiency, facilitating adaptive decision-making, and ensuring continuity of

operations under crisis conditions (Benjamin & Foye, 2022; Ashiru et al., 2023).

The relevance of MIS becomes even more pronounced in conflict-sensitive environments where timely access to accurate information can determine institutional survival. In regions affected by insecurity, broadcasting organizations require systems that can support rapid information processing, remote coordination, secure data storage, and continuity of transmission despite infrastructural disruptions. Effective MIS can help media institutions preserve operational records, safeguard institutional memory, coordinate field reporters, monitor threats, and maintain communication networks during emergencies. Furthermore, resilient information systems reduce dependence on manual procedures that are often vulnerable to delays, misinformation, and operational breakdowns during crises. Research on organizational resilience consistently emphasizes that the management and flow of information are critical determinants of an institution's ability to withstand and recover from disruptions (Stephenson et al., 2010; Duchek, 2020). However, despite the acknowledged importance of information systems in modern organizations, empirical evidence suggests that many public broadcasting institutions in Nigeria still struggle with inadequate digital infrastructure, poor MIS implementation, insufficient staff training, and weak technological integration. Existing studies on Nigerian media organizations have largely focused on broadcasting effectiveness, strategic adaptability, public relations, and organizational performance, with limited scholarly attention given to the intersection between Management Information Systems and organizational resilience in high-insecurity regions. Moreover, most available studies examine resilience within private enterprises, supply chains, healthcare systems, and telecommunications sectors, leaving a significant gap regarding public broadcasting institutions operating in conflict-prone environments. This gap is particularly concerning given the strategic role of public media organizations in national security communication, public enlightenment, and emergency response coordination within North-Eastern Nigeria.

It is against this backdrop that this study investigates the relationship between Management Information

Systems and organizational resilience in public broadcasting institutions within high-insecurity regions, with specific evidence drawn from radio and television stations in North-Eastern Nigeria. The study seeks to examine how MIS contributes to operational continuity, adaptive capacity, crisis response, institutional flexibility, and organizational survival amid persistent security challenges. By exploring the role of information systems in strengthening resilience within public broadcasting institutions, the study contributes to emerging discourse on digital transformation, organizational sustainability, crisis management, and media survival in fragile environments. The findings are expected to provide practical insights for policymakers, media administrators, communication regulators, and security stakeholders seeking to strengthen the resilience and sustainability of public broadcasting institutions in Nigeria and other conflict-affected regions.

II. STATEMENT OF THE PROBLEM

Public broadcasting institutions in North-Eastern Nigeria operate within an environment characterized by insurgency, terrorism, infrastructural destruction, and persistent socio-political instability. Radio and television stations in states such as Borno, Adamawa, and Yobe play vital roles in disseminating security information, emergency alerts, public enlightenment, and government directives during crises. However, many of these institutions continue to experience operational disruptions, weak communication systems, poor information management, technological failures, and inadequate crisis-response mechanisms, which undermine their ability to function effectively during periods of insecurity.

The problem observed is the apparent lack of organizational resilience among public broadcasting institutions operating in these high-insecurity regions, largely due to the inadequate deployment and utilization of Management Information Systems (MIS). Many stations still struggle with obsolete technologies, poor digital infrastructure, unreliable data management systems, and insufficient technical expertise. This situation affects media workers, management, government agencies, and citizens who

rely heavily on broadcasting institutions for credible and timely information during emergencies.

Scholars such as Duchek (2020), Heide and Simonsson (2021), and Ashiru et al. (2023) have emphasized that effective information systems enhance organizational resilience through improved communication, decision-making, adaptability, and operational continuity during crises. Although the Nigerian government and regulatory agencies have introduced digital broadcasting reforms and ICT initiatives, significant gaps remain in the integration of resilient information systems within public broadcasting institutions in conflict-prone regions.

Despite existing studies on organizational performance and digital communication, limited empirical research has examined the relationship between Management Information Systems and organizational resilience in public broadcasting institutions within high-insecurity environments. Consequently, it remains unclear how MIS can improve crisis response, operational continuity, and institutional adaptability among broadcasting organizations in North-Eastern Nigeria.

If this problem is not addressed, broadcasting institutions may continue to suffer operational breakdowns, weak crisis communication, and reduced public trust, thereby affecting national security communication and societal stability. Therefore, this study is necessary to provide empirical evidence on how Management Information Systems can strengthen organizational resilience in public broadcasting institutions operating in high-insecurity regions.

III. PURPOSE OF THE STUDY

The main objective of this study is to examine the relationship between Management Information Systems and organizational resilience in public broadcasting institutions within high-insecurity regions, using evidence from radio and television stations in North-Eastern Nigeria.

The study seeks to:

- i. Examine the effect of Management Information Systems on organizational resilience in public broadcasting institutions in North-Eastern Nigeria.
- ii. Assess the influence of Management Information Systems on crisis response and operational continuity in public radio and television stations within high-insecurity regions.
- iii. Identify the challenges affecting the effective implementation of Management Information Systems in public broadcasting institutions in North-Eastern Nigeria.

IV. Research Questions

The following research questions guided the investigations in the study:

- i. What effect do Management Information Systems have on organizational resilience in public broadcasting institutions in North-Eastern Nigeria?
- ii. How do Management Information Systems influence crisis response and operational continuity in public radio and television stations within high-insecurity regions?
- iii. What challenges affect the effective implementation of Management Information Systems in public broadcasting institutions in North-Eastern Nigeria?

V. SIGNIFICANCE OF THE STUDY

This study is significant because it addresses a critical institutional challenge confronting public broadcasting organizations operating within conflict-prone and high-insecurity environments. In North-Eastern Nigeria, where insurgency, terrorism, infrastructural destruction, and communication disruptions have persisted for over a decade, public radio and television stations remain central to emergency communication, public sensitization, and the dissemination of security-related information. However, recurring operational disruptions, weak technological infrastructure, poor crisis coordination, and inadequate information management systems continue to undermine the effectiveness and resilience of these institutions. By examining the

relationship between Management Information Systems (MIS) and organizational resilience, this study provides evidence-based insights into how digital information systems can strengthen institutional survival, operational continuity, and crisis response capability within vulnerable broadcasting organizations.

The study is particularly important to management and administrators of public broadcasting institutions because it provides an analytical understanding of how MIS can improve organizational adaptability, communication efficiency, decision-making speed, and operational sustainability during emergencies. Existing evidence suggests that organizations with strong information systems are better positioned to withstand disruptions and maintain continuity during crises (Duchek, 2020; Ashiru, Nakpodia, & You, 2023). This study therefore offers practical strategies that can assist broadcasting managers in improving digital coordination, protecting institutional data, strengthening disaster recovery systems, and enhancing crisis preparedness in high-risk environments.

For policymakers and government agencies, especially media regulatory institutions such as the National Broadcasting Commission (NBC), the study provides policy-relevant evidence on the urgent need to strengthen ICT infrastructure and digital resilience within public broadcasting institutions. The findings may support the development of more effective policies on digital broadcasting, cybersecurity, emergency communication systems, and technological capacity building. Considering the strategic role of broadcasting institutions in national security communication and public awareness, the study also highlights the broader implications of weak information systems on governance, crisis management, and public safety in conflict-affected regions.

The study further contributes to academic knowledge by filling an important gap in the existing literature. While previous studies have examined MIS, organizational performance, and digital communication in various sectors, limited empirical attention has been given to the specific relationship between Management Information Systems and

organizational resilience within public broadcasting institutions operating under conditions of persistent insecurity. By focusing on North-Eastern Nigeria, the study contributes context-specific evidence to the fields of Management Information Systems, Media Studies, Organizational Management, and Crisis Communication. It also provides a foundation for future comparative and interdisciplinary studies on digital resilience and institutional sustainability in fragile environments.

In addition, the study is socially significant because resilient broadcasting institutions directly affect citizens and communities that rely on timely and credible information during emergencies. Insecurity often creates conditions in which misinformation, panic, and communication breakdown can worsen humanitarian and security situations. Strengthening MIS in public broadcasting institutions can improve emergency reporting, public enlightenment, disaster communication, and the dissemination of government directives, thereby contributing to public trust, social stability, and community resilience. Ultimately, the study underscores the importance of building technologically resilient broadcasting systems capable of functioning effectively even under severe security threats and environmental disruptions.

VI. LITERATURE REVIEW

i. Organizational Resilience Theory

Organisational Resilience Theory as proposed by Ducheck (2020:Hollnagel, Woods, & Leveson, 2006), explains the ability of organizations to anticipate, prepare for, respond to, and recover from disruptions while maintaining continuous operations. The theory emphasizes adaptability, flexibility, learning capacity, and strategic response mechanisms during crises or environmental uncertainty. This theory is highly relevant because public broadcasting institutions in North-Eastern Nigeria operate within highly insecure environments characterized by insurgency, terrorism, infrastructural destruction, and communication disruptions. The theory helps explain how Management Information Systems can enhance institutional resilience through, real-time information sharing, crisis communication, operational continuity, rapid decision-making, information security, adaptive coordination. MIS serves as a strategic tool that

enables broadcasting institutions to remain functional and responsive despite insecurity challenges. The theory supports the argument that organizations with effective information systems are better positioned to withstand disruptions and sustain broadcasting operations during crises.

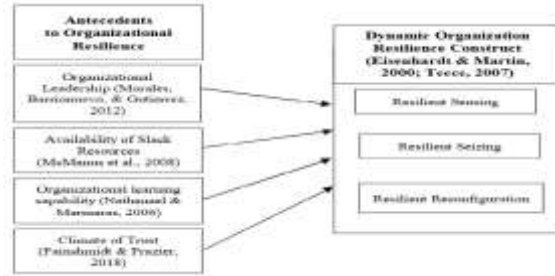


Figure 1: Proposed theoretical framework of Organisational Resilience

Source: Talha,Z.A.K, Waqas,F. and Haroon,R. (2019).

ii. Socio-Technical Systems Theory (Trist & Bamforth, 1951)

The Socio-Technical Systems Theory was developed by Trist and Bamforth (1951) to explain the relationship between technological systems and human factors within organizations. The theory posits that every organization consists of two interconnected components: the social system and the technical system. The social system includes employees, management, communication patterns, and organizational culture, while the technical system involves machines, technologies, procedures, and operational processes. According to the theory, organizational effectiveness can only be achieved when both systems are properly integrated and balanced. This means that technology alone cannot guarantee organizational success unless it is supported by competent personnel, effective communication, and appropriate organizational structures.

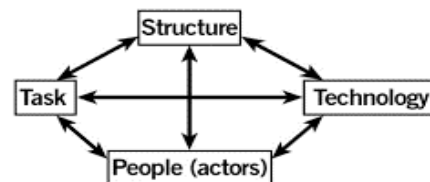


Figure 2: Socio-Technical Systems Theory Source: Trist & Bamforth (1951)

The theory is relevant to this study because it explains how Management Information Systems (MIS) and human capabilities jointly influence organizational resilience in public broadcasting institutions within high-insecurity regions. In North-Eastern Nigeria, public radio and television stations require reliable technological systems and skilled personnel to sustain operations during crises. MIS represents the technical system through digital communication tools, databases, and information-processing technologies, while employees and management constitute the social system responsible for utilizing these technologies effectively. The theory therefore supports the view that organizational resilience can be strengthened when technological infrastructure and human resources work together effectively to improve communication, crisis response, operational continuity, and institutional adaptability during periods of insecurity (Trist & Bamforth, 1951).

VII. RESEARCH METHODOLOGY

This study adopted a descriptive survey research design to examine the relationship between Management Information Systems and organizational resilience in public broadcasting institutions within high-insecurity regions, with particular focus on radio and television stations in North-Eastern Nigeria. The descriptive survey design was considered appropriate because it enables the researcher to obtain relevant data from respondents regarding existing conditions, practices, and perceptions relating to Management Information Systems and organizational resilience (Creswell, 2018).

The population of the study comprised management staff, ICT personnel, journalists, engineers, and administrative employees of selected public radio and television stations in North-Eastern Nigeria, particularly in Borno, Adamawa, and Yobe States. These institutions were selected because they operate within regions significantly affected by insecurity and insurgency. The population of senior staff of these broadcasting stations was estimated to be 400, the sample size of 200 was determined using Taro

Yamane (1967) formula, and stratified random sampling was used to select respondents into the sample.

A structured questionnaire was used as the primary instrument for data collection. The questionnaire was divided into sections covering respondents' demographic characteristics, Management Information Systems practices, organizational resilience indicators, crisis response capability, operational continuity, and challenges affecting MIS implementation. The instrument adopted a five-point Likert scale ranging from Strongly Agree to Strongly Disagree. In addition, relevant secondary data were obtained from journal articles, textbooks, official reports, and institutional publications to support the study.

The validity of the instrument was established through expert review by specialists in Management Information Systems, Mass Communication, and Research Methodology, while reliability was tested using Cronbach's Alpha to ensure internal consistency of the research instrument.

Data collected for the study were analyzed using both descriptive and inferential statistical techniques. Descriptive statistics, such as frequency distribution, percentages, mean, and standard deviation, were used to analyze respondents' demographic information and research questions. Inferential statistics, particularly regression analysis and Pearson Product Moment Correlation, were employed to test the relationship between Management Information Systems and organizational resilience in public broadcasting institutions. All hypotheses were tested at a 0.05 level of significance.

The study was anchored on the Organizational Resilience Theory by Duchek (2020:Hollnagel, Woods, & Leveson, 2006) and the Socio-Technical Systems Theory developed by Trist and Bamforth (1951), which explains the interaction between technological systems and human factors in enhancing organizational effectiveness and resilience. The theories provided the framework for understanding how Management Information Systems and human capabilities jointly influence

organizational resilience in public broadcasting institutions operating in high-insecurity regions.

Table 1: Analysis of Bio data of Respondents

Biodata	Frequency	Percentage
Gender		
Male	121	60.5
Female	79	39.5
Educational Qualification		
PSLC	10	5
SSCE	15	7.5
OND/NCE	55	27.5
Bachelor Degree	108	54
Master's Degree	9	4.5
PhD	3	1.5
Department/Profession		
Administration	25	12.5
ICT	55	27.5
Engineers,	24	12
Journalists	80	40
others	16	8

Source: Field Survey, 2026

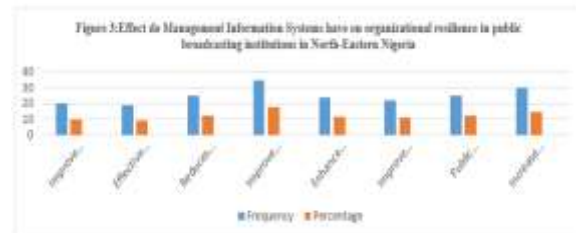
In Table 1 above, out of 200 respondents that participated in the study, 121(60%) were male, while 79 (39%) were female. 10 (5%) had Primary School Certificate, 15 (7.5%) had Secondary School Certification, 55 (27.5) had either Ordinary National Diploma or National Certificate of Education. The highest was Bachelor Degree Certificate, 108 (54%), 9 (4.5%) had Master degrees, while 3 (1.5%) had Doctorate degrees. Respondents were selected from the following departments in the broadcasting stations: Administration 25 (12.5%), Information and Communication Technology 55 (27.5%), Engineers 24 (12%), Journalist 80 (40%), Others 16(8%).

Analysis of Respondents' Responses to Research Questions

Table 2: Response to Research Question One: What effect do Management Information Systems have on organizational resilience in public broadcasting institutions in North-Eastern Nigeria?

S/N	Responses	Frequency	Percentages
1	MIS Improves communication flow within the Broadcasting organizations	20	10

2	MIS enhances faster and more effective decision-making during crises.	19	9.5
3	MIS reduces operational delays and communication breakdowns during crisis.	25	12.5
4	MIS improves crisis response and emergency communication.	35	17.5
5	MIS helps enhance adaptability to security-related challenges and environmental changes.	24	12
7	It improves disaster recovery and backup information management.	22	11
8	MIS helps to better disseminate public safety and emergency information.	25	12.5
9	MIS increases efficiency in broadcasting operations and service delivery.	30	15
	Total	200	100



The table above presents respondents' assessment of the effect of Management Information Systems (MIS) on organizational resilience in public broadcasting institutions in North-Eastern Nigeria. The findings indicate that the highest proportion of respondents, 35 (17.5%), identified improved crisis response and emergency communication as the major effect of MIS. This was followed by 30 respondents (15%) who believed that MIS increases efficiency in broadcasting operations and service delivery. Additionally, 25 respondents each, representing 12.5%, stated that MIS reduces operational delays and communication breakdowns during crises and

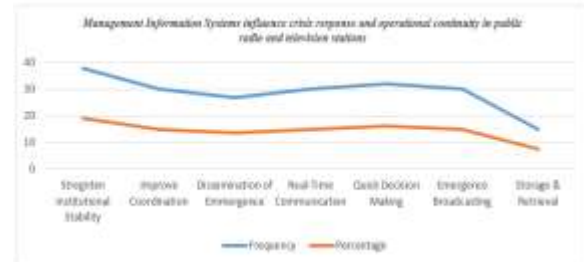
also improves dissemination of public safety and emergency information.

Furthermore, 24 respondents (12%) indicated that MIS enhances adaptability to security-related challenges and environmental changes, while 22 respondents (11%) stated that MIS improves disaster recovery and backup information management. Also, 20 respondents (10%) believed that MIS improves communication flow within broadcasting organizations, whereas 19 respondents (9.5%) agreed that MIS enhances faster and more effective decision-making during crises. The findings generally suggest that Management Information Systems play a significant role in strengthening organizational resilience, operational continuity, and crisis management capability in public broadcasting institutions operating within high-insecurity regions.

Table 3: Responses to Research Question Two: How do Management Information Systems influence crisis response and operational continuity in public radio and television stations within high-insecurity regions?

S/N	Responses	Frequency	Percentages
1	MIS Strengthen institutional stability, survival, and resilience in conflict-prone environments.	38	19
2	MIS Improve coordination between management, journalists, engineers, and ICT personnel.	28	14
3	MIS Facilitate rapid dissemination of emergency and security information.	27	13.5
4	Improve real-time communication and coordination during crises.	30	15
5	MIS enhance quick decision-making and response to emergencies.	32	16
7	Support continuous public awareness and emergency broadcasting services.	30	15

8	Enhance information storage, retrieval, and protection of organizational records.	15	7.5
	Total	200	100



The second research question examined how Management Information Systems (MIS) influence crisis response and operational continuity in public radio and television stations within high-insecurity regions. The findings revealed that MIS plays a significant role in strengthening organizational resilience, communication, and emergency response within public broadcasting institutions.

The analysis showed that 38 respondents (19%) agreed that MIS strengthens institutional stability, survival, and resilience in conflict-prone environments. Also, 32 respondents (16%) believed that MIS enhances quick decision-making and responses to emergencies. Furthermore, 30 respondents each (15%) stated that MIS improves real-time communication and coordination during crises and supports continuous public awareness and emergency broadcasting services.

In addition, 28 respondents (14%) indicated that MIS improves coordination between management, journalists, engineers, and ICT personnel, while 27 respondents (13.5%) noted that MIS facilitates the rapid dissemination of emergency and security information. However, only 15 respondents (7.5%) recognized that MIS enhances information storage, retrieval, and the protection of organizational records. Overall, the findings indicate that Management Information Systems significantly enhance crisis response, operational continuity, communication efficiency, and institutional resilience in public broadcasting organizations operating within high-insecurity regions.

Table 4: Responses to Research Question Three: What challenges affect the effective implementation of Management Information Systems in public broadcasting institutions in North-Eastern Nigeria?

S/N	Responses	Frequency	Percentages
1	Inadequate funding for ICT infrastructure and technological development.	37	18.5
2	Poor internet connectivity and unstable network services.	32	16
3	Unreliable electricity supply affecting digital operations.	20	10
4	Inadequate ICT infrastructure and obsolete technological equipment.	30	15
5	Lack of skilled ICT personnel and technical expertise	10	5
7	Security threats, insurgency, and vandalism affecting communication facilities.	25	12.5
8	Poor data security and vulnerability to cyber threats.	10	5
9	Limited organizational readiness for digital transformation and crisis management.	11	5.5
10	Limited access to modern digital broadcasting technologies.	25	12.5
	Total	200	100



The third research question examined the challenges affecting the effective implementation of Management Information Systems (MIS) in public

broadcasting institutions in North-Eastern Nigeria. The findings revealed that inadequate funding for ICT infrastructure and technological development was identified as the major challenge by 37 respondents (18.5%). This indicates that limited financial resources hinder the acquisition and maintenance of modern technological systems required for effective broadcasting operations. The study also showed that poor internet connectivity and unstable network services accounted for 32 respondents (16%), while 30 respondents (15%) identified inadequate ICT infrastructure and obsolete technological equipment as major challenges. In addition, 25 respondents each (12.5%) stated that limited access to modern digital broadcasting technologies and security threats, insurgency, and vandalism affecting communication facilities significantly affect MIS implementation. Furthermore, 11 respondents (5.5%) identified limited organizational readiness for digital transformation and crisis management as a challenge, while 10 respondents each (5%) pointed to poor data security and a lack of skilled ICT personnel and technical expertise. Overall, the findings suggest that financial, technological, security, and human capacity challenges significantly limit the effective implementation of Management Information Systems in public broadcasting institutions within high-insecurity regions.

VIII. SUMMARY OF FINDINGS

- i. The study found that Management Information Systems (MIS) significantly improve crisis response and emergency communication in public broadcasting institutions within North-Eastern Nigeria.
- ii. The findings revealed that MIS increases efficiency in broadcasting operations and service delivery, thereby strengthening organizational resilience and operational continuity.
- iii. The study showed that MIS reduces operational delays and communication breakdowns during crises while improving the dissemination of public safety and emergency information.
- iv. The findings indicated that MIS enhances adaptability to security-related challenges, improves disaster recovery systems, and

strengthens the flow within broadcasting organizations.

- v. The study revealed that MIS enables faster and more effective decision-making during emergencies and crisis situations.
- vi. The findings showed that MIS strengthens institutional stability, survival, and resilience in public radio and television stations operating in conflict-prone environments.
- vii. The study found that MIS improves real-time communication, coordination, and collaboration among management, journalists, engineers, and ICT personnel during crises.
- viii. The findings revealed that MIS facilitates the rapid dissemination of emergency and security information and supports continuous public awareness broadcasting services.
- ix. The study identified inadequate funding for ICT infrastructure and technological development as the major challenge affecting the effective implementation of MIS in public broadcasting institutions.
- x. The findings further showed that poor internet connectivity, unstable network services, inadequate ICT infrastructure, and obsolete technological equipment significantly hinder the effective MIS.
- xi. The study also revealed that security threats, insurgency, vandalism, poor data security, a lack of skilled ICT personnel, and limited organizational readiness for digital transformation negatively affect the implementation of MIS in public broadcasting institutions within high-insecurity regions.

IX. DISCUSSION OF FINDINGS

The findings of this study revealed that Management Information Systems (MIS) significantly enhance organizational resilience, crisis response, operational continuity, and communication efficiency in public broadcasting institutions within high-insecurity regions. The study found that MIS improves crisis response, emergency communication, operational efficiency, and the dissemination of public safety information. This finding agrees with Duchek (2020) and Heide and Simonsson (2021), who argued that effective information and communication systems strengthen organizational resilience and improve

institutional response during crises. The findings also support Laudon and Laudon (2021), who noted that MIS improves operational coordination, productivity, and managerial effectiveness through timely access to information.

The study further revealed that MIS enhances real-time communication, coordination, adaptability, and quick decision-making during emergencies. This is consistent with the findings of Okunade (2016) and Ashiru, Nakpodia, and You (2023), who observed that digital communication technologies improve organizational adaptability, reduce operational delays, and strengthen crisis management capability. The finding also aligns with the Socio-Technical Systems Theory of Trist and Bamforth (1951), which emphasizes that organizational effectiveness depends on the proper integration of technological systems and human resources.

However, the study identified inadequate funding, poor internet connectivity, obsolete ICT infrastructure, insecurity, and lack of skilled ICT personnel as major challenges affecting the effective implementation of MIS. These findings are consistent with Adelaiye, Adubasim, and Adim (2020) and Nwakanma, Ubani, and Orajaka (2014), who found that weak technological infrastructure, financial constraints, and limited technical expertise negatively affect ICT implementation and organizational performance in Nigeria. Overall, the findings confirm that effective MIS is essential for strengthening organizational resilience and sustaining broadcasting operations within conflict-prone environments.

X. CONCLUSION

This study concludes that Management Information Systems (MIS) play a vital and transformative role in strengthening organizational resilience, crisis response, and operational continuity in public broadcasting institutions within high-insecurity regions of North-Eastern Nigeria. The findings clearly show that MIS enhances communication efficiency, supports rapid decision-making, improves emergency broadcasting, and ensures continuity of operations during crises. These functions are essential for public broadcasting institutions operating in

environments characterized by insecurity, instability, and infrastructural disruptions.

However, the effectiveness of MIS is significantly constrained by inadequate funding, weak ICT infrastructure, poor internet connectivity, insecurity, and a shortage of skilled technical personnel. These challenges limit the full realization of MIS benefits and reduce the capacity of broadcasting institutions to function optimally during emergencies. Overall, the study establishes that while MIS is indispensable for organizational resilience and crisis management, its impact depends largely on adequate investment in infrastructure, human capacity development, and supportive institutional and policy frameworks.

XI. RECOMMENDATIONS

Based on the findings of the study, the following practical recommendations are made:

- i. Public broadcasting institutions should strengthen their Management Information Systems (MIS) by investing in modern digital infrastructure to improve crisis response, communication efficiency, and operational continuity.
- ii. Government and relevant agencies should increase funding for ICT development in public broadcasting stations, especially in North-Eastern Nigeria, to address challenges of inadequate resources and obsolete equipment.
- iii. Reliable internet connectivity and a stable power supply should be prioritized to ensure uninterrupted broadcasting operations and effective use of MIS during emergencies.
- iv. Broadcasting institutions should upgrade their ICT facilities and replace outdated equipment to enhance efficiency and reduce operational delays during crises.
- v. Regular training and capacity-building programmes should be provided for ICT staff, journalists, and management to improve technical competence and the effective use of MIS.
- vi. Security measures should be strengthened to protect broadcasting infrastructure from

insurgency, vandalism, and other security threats affecting communication systems.

- vii. Strong data protection and backup systems should be implemented to safeguard organizational records and ensure continuity of operations during disruptions.
- viii. Management should promote digital transformation readiness by encouraging staff acceptance and the integration of MIS into daily broadcasting operations.

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