

UAI JOURNAL OF ARTS, HUMANITIES AND SOCIAL SCIENCES

(UAJAHSS)



Abbreviated Key Title: UAI J Arts Humanit Soc Sci

ISSN: 3048-7692 (Online)

Journal Homepage: <https://uaipublisher.com/uaijahss/>

Volume- 3 Issue- 8 (August) 2026

Frequency: Monthly



New Media Technologies and Radio Broadcasting in Select Radio Stations in Akwa Ibom State

Esangubong Udofia Umo-Udofia^{1*}, Daniel Calixtus Akarika, Ph.D², Aniekeme Okon Ikon, Ph.D³

^{1, 2, 3} Department of Mass Communication, Faculty of Communication and media Studies Akwa Ibom State University, Obio Akpa Campus, Akwa Ibom State, Nigeria.

Corresponding Author: Esangubong Udofia Umo-Udofia

ABSTRACT

This study examined the use of new media technologies in radio broadcasting in selected radio stations in Akwa Ibom State, Nigeria. The study sought to determine the extent to which new media technologies are used in broadcasting operations, examine their influence on broadcasting practices, and assess journalists' views on their relevance to broadcast journalism. A mixed-method research design was used, involving survey and in-depth interviews. The study covered 88 broadcast professionals from Radio Akwa Ibom 90.5 FM, Comfort 95.1 FM, Atlantic 104.5 FM, and Planet 101.1 FM. Quantitative data were analysed using frequency tables and Pearson Product Moment Correlation, while interview responses were analysed thematically. The findings showed that new media technologies, particularly social media platforms, the internet, smartphones, online radio applications, and digital editing tools, are frequently used in the selected radio stations. The study also found a very strong and significant relationship between the use of new media technologies and radio broadcasting practices ($r = 0.994$, $p < 0.05$). Findings also showed that journalists generally viewed these technologies as useful because they make news gathering and reporting faster, improve audience interaction, enhance programme production, and increase the reach of radio content. The study concluded that new media technologies have become integral to contemporary radio broadcasting in Akwa Ibom State. The study recommended regular staff training and improved investment in digital facilities and internet services to strengthen broadcasting practices.

KEY WORDS: New Media, New Media Technologies, Radio Broadcasting.

Introduction

New Media Technologies have brought major changes to human activities, particularly in the media and broadcasting industries. The growth of the internet and other new media platforms has transformed established patterns of communication and changed how information is created, accessed, shared and consumed. Unlike traditional media, which largely operated through one-way communication, digital media provide opportunities for continuous

interaction and feedback between media producers and their audiences (Oni, 2018). These changes have consequently reshaped the mass media environment, including radio broadcasting, which has traditionally depended on frequency-based transmission (Oni, 2018). The transition to digital broadcasting has therefore required radio organisations to adjust not only their technical operations but also their social, cultural and institutional practices.

Contemporary radio has increasingly moved beyond its traditional

identity as an audio-only medium. Radio stations now combine conventional broadcasting with websites, social media, mobile applications, online streaming and other digital platforms in the production and distribution of content. According to Harliantara (2024), digital technologies have substantially transformed the processes through which radio content is produced and disseminated. Similarly, Bonini and Monclús (2014) emphasise the growing convergence between traditional broadcasting and digital platforms, particularly through the incorporation of social media. This development demonstrates that digital transformation has become an important part of the continuing evolution of radio rather than a temporary technological development.

Although diffusion of personal computers, Internet and mobile phones would not happen in Nigeria until mid-1990s and early 2000s. The rapid uptake of these new digital technologies in newsrooms have rekindled some hope with regards to broadcast journalism. New technologies are being deployed for production and to deliver interactive/participatory programming. The growth in the information and communication technology (ICT) sector has been a powerful catalyst in repositioning broadcasting in Nigeria. Radio production and dissemination of programming have changed considerably as a result of the adoption and appropriation of social media and mobile phones. Since the introduction of Facebook Live in 2016, a number of these stations have been appropriating the foremost social network site for live streaming of their flagship programmes. This is a creative attempt to circumvent the costly web portal subscription for a streaming service. The approach also allows them to beat the geographic limitation of reaching more audience especially the “global” diasporic audience.

Without gainsaying, Nigeria has benefitted from the advent of new digital technologies, a situation which is evidenced in the rate of diffusion and adoption of new technologies across sectors, including journalism. With the diffusion of new digital technologies into the Nigerian media space, frantic effort has been made to adopt and appropriate the prospects embedded in the features of these technological artefacts in the production and dissemination processes of broadcast media content.

Given the prevailing socio-economic realities in Nigeria, it remains uncertain how radio broadcast stations, particularly those operating within Akwa Ibom State, are responding to the demands of digital transformation and the rapid proliferation of new media technologies. Although the growth of both public and private stations in the state has expanded competition and diversified programming, many of these stations continue to grapple with challenges such as inadequate funding, outdated equipment, unstable internet connectivity, and limited technical expertise among personnel. While some broadcasters have begun to experiment with social media platforms, mobile applications, and online streaming to engage audiences and enhance participatory programming, the extent to which these technologies are systematically integrated into everyday newsroom and production practices remains unclear. This gap therefore necessitates an examination of how new media technologies are being utilised and incorporated into radio broadcasting practices in Akwa Ibom State.

Statement of the Problem

In recent years, new media technologies have increasingly reshaped the practice of journalism and broadcasting across the world. Studies by Oni (2018), Harliantara (2024), and Ogwuche (2017) have revealed that new media technologies create numerous opportunities, including interactivity and participation, the

emergence of citizen journalism, cross-media and multimedia journalism, the promotion and distribution of programmes across a wider range of platforms, and the growth of media consumption through interactive and participatory digital platforms that are not tied to a single location or confined to a single type of media. Digital tools such as the internet, social media platforms, smartphones, and streaming services now allow journalists to gather information faster, interact directly with audiences, and distribute content across multiple platforms simultaneously. In many developed media environments, these technologies have become an essential part of newsroom routines rather than optional additions. In many advanced broadcasting environments, digital tools have become central to newsroom operations, enabling faster information gathering, wider audience reach, and more efficient programme delivery. As a result, modern broadcasting is gradually shifting from traditional analogue processes to more flexible and interactive digital systems.

However, despite these noticeable global changes, it is not very clear how far radio stations in Nigeria have embraced these new media technologies in their everyday operations. While many stations appear to have access to some digital tools, there is little concrete evidence showing the extent to which these technologies are actually used in radio broadcast practice. This situation raises concerns about whether radio stations are fully harnessing the opportunities provided by digital innovation to enhance productivity, audience engagement, and professional performance.

In Akwa Ibom State, specifically, there is limited empirical research documenting the nature and level of new media technology usage among radio stations. It remains uncertain what technologies are available, how frequently they are used, how they influence broadcasting practices, and what challenges may be limiting their effective utilisation. The absence of such information creates a knowledge gap and makes it difficult for station managers, policymakers, and media practitioners to develop appropriate strategies for technological improvement. Without clear evidence, decisions about investment, training, and digital transformation may be based on assumptions rather than facts.

This situation therefore presents a problem that requires systematic investigation. Understanding how and to what extent new media technologies are utilised in radio broadcasting is necessary for improving practice and ensuring that stations remain relevant in an increasingly digital media environment. It is against this backdrop that this study examined the utilisation, and influence of new media technologies among selected radio stations in Akwa Ibom State

Aims and Research Objectives

The objectives of this study were to:

1. examine the extent to which select radio stations in Akwa Ibom State utilise new media technologies in their broadcast operations.
2. assess the influence of new media technologies on radio broadcasting practices in select radio stations in Akwa Ibom State.
3. **investigate** the perceptions of radio broadcast journalists regarding the relevance of new media technologies to broadcast journalism practice.

Research Questions

The following research questions are formulated to guide the study:

1. To what extent do select radio stations in Akwa Ibom State use new media technologies in their broadcasting operations??
2. What influence do new media technologies have on radio broadcasting practices in select radio stations in Akwa Ibom State?
3. What are the perceptions of radio broadcast journalists regarding the relevance of new media technologies to broadcast journalism practice?

LITERATURE REVIEW

Empirical Review

Obayi, Onyebuchi, and Uwanuakwa (2018) examined the journalists' perception of the influence of ICT in enhancing journalism practice in Owerri, Imo State. The Technological Acceptance model and Technological Determinism theory were used as the theoretical framework of the study. The survey research method was used in the study. Using the census principle to determine sample size, a total of 220 respondents served as the study's population (the total number of registered journalists in Imo State as contained in the register of The Nigeria Union of Journalists Imo State chapter). The study's instrument was a questionnaire. According to the findings, 90 percent of journalists in Owerri had access to ICTs, and 82 percent of journalists had been greatly aided by ICT in news gathering and reporting. It was also discovered that 58 percent of journalists in Owerri face challenges due to the high cost of installing new technologies in media houses, while 90 percent of journalists in Owerri strongly agreed that ICT has influenced the way they carry out their duties. The study concluded that ICT has improved journalism practice in Imo State. It also suggested that media organisations invest in ICT equipment to improve and sustain the ICT-compliant journalism profession. The study under review shares some similarities with the present.

Oni (2018) investigated how journalistic role conceptions and perceived attributes of new technologies, among other external forces, shape broadcast journalists' intention and actual use of new media technologies. An integrated model developed from extant technology adoption and role conception theories was used to examine individual journalists' subjective beliefs about new technologies and normative roles. A hundred and forty-nine (149) broadcast journalists were drawn from 18 FM radio stations in four southwest states of Nigeria using multi-stage purposive and snowballing techniques. Factorial analyses from the study confirmed the significance of perceived technological attributes in technology adoption. Role conception correlated with technology adoption. Together, they predicted broadcast journalists' intention and actual use of new media technologies, with 32% total variance (R²). Multiple regression models also showed that a combination of perceived technological attributes (utilitarian, communication and hedonic values), perceived organisational support and agenda, and perceived institutional policy control accounted for between 8-10% of the total variance in broadcast journalists' intention and actual use of new digital technologies.

Ogwuche (2017) in his study examined how the adoption convergence technology has influenced sport reporting in Nigeria. Using mixed research methods, in-depth interview, observation checklist and questionnaire were adopted as instruments for data collection. The in-depth interviews were conducted with the heads of stations at Brila FM Abuja headquarter and Brila FM Kaduna station. The study found out that the station had adopted convergence technologies in its operation because almost all the

activities done or carried out at Brila FM in one way or the other involved the use of convergence technology. The researcher also observed that there were provisions for latest convergence facilities at Brila FM as staff derive benefits from using convergence technologies for their work, some benefits include quick download of sports stories from any sports website around the world.

Amadi, Efetobor & Joseph (2017), examined how new media technologies has shaped modern broadcasting in Nigeria prompted. The study's objectives were to find out the extent to which private broadcasting stations in Uyo have deployed the new media of communication in their broadcasting service. Based on the statistics obtained from broadcast journalist purposefully selected from two radio stations in Uyo, findings from research data shows that contrary to insinuation that Nigerian cannot meet the Digital Switch-Over deadline; broadcast media stations in Uyo have greatly deployed new media technologies in their services. Also, findings indicated that broadcasting stations' staff in Uyo, to a great extent have the technical knows-how in the use of the new media tools for broadcasting. The study recommended that since the conventional mass communication offering institutions in Nigeria do not presently have in-depth training in Internet-related issues, there is the need to include Internet or Online Journalism in the National Universities Commission's (NUC) curriculum for training institutes. Suggestions for further research were made at the end of the study based on the findings of the research.

THEORETICAL FRAMEWORK

Technological Determinism Theory

The term "technological determinism" was coined by Thorstein Veblen (1857–1929), an American sociologist and economist. The most radical technological determinist in the United States in the 20th century was most likely Clarence Ayres, who was a follower of Thorstein Veblen & John Dewey. William Ogburn was also known for his radical technological determinism. The first major elaboration of a technological determinist view of socio-economic development came from the German philosopher and economist, Karl Marx, whose theoretical framework was grounded in the perspective that changes in technology and specifically productive technology, are the primary influence on human social relations and organisational structure and that social relations and cultural practices, ultimately revolve around the technological and economic base of a given society. Marx's position has become embedded in contemporary society, where the idea that fast-changing technologies alter human lives is all-pervasive.

The theory revolves around the proposition that technology in any given society defines its nature. Technology is viewed as the driving force of culture in a society and it determines its course of history (Oladele & Asemah, 2022). Mediawiki.edu (2008), as cited in Aboh, Amah & Asemah (2021) notes that technological determinism is the theory that says a society's technology determines its cultural values, social structure and history. Technological development has changed the face of communication to the point that citizen journalists have emerged. The act of news reporting has been democratised worldwide and social media are now being used as platforms to influence people (Ajibulu & Asemah, 2021).

Technological Determinism Theory is highly relevant to this study because it explains how technological innovations shape communication processes, media practices, and institutional behaviour in society. The theory posits that technology is the primary driving force behind social change and that new

communication technologies influence how individuals, organisations, and institutions operate. In the context of this research, the theory helps to explain how modern media and communication technologies determine the methods through which information is produced, disseminated, and consumed. Developments such as digital platforms, social media, online broadcasting tools, and mobile phones have transformed traditional media routines and professional practices. These technological changes influence how news organisations produce their contents, distribute and also relate with stakeholders.

Diffusion of Innovation Theory (DIT)

Diffusion of Innovation Theory was proposed by Everett Rogers in 1962. Diffusion, in this theory, is defined as the process through which an innovation is communicated and spread over time to members of a community. The theory provides a basis for understanding the “one stage process” of who will use a technology and how quickly it will diffuse through a population up till the point when prospective users become exhausted (Rogers, 2003).

According to Rogers (2003), innovations are defined by five important characteristics: relative advantage, compatibility, complexity, trial-ability, and observability. Relative advantage has to do with the degree of positive differential to previous system/technology; the notion that an innovation is better than its predecessor. Compatibility characteristic has to do with degree of conformity with already known value system and user experience; the consistency of an innovation with needs, values, and experiences of the adopter. The complexity characteristic has to do with level of difficulty for using an innovation. The trialability characteristic describes the limited basis in which a potential adopter can experiment with an innovation. And lastly, the observability characteristic has to do with the degree to which the results of adopting an innovation can be seen by others. These characteristics have been found to be positively related to the rate of adoption (Atkin et al. 2015).

Other features common to DIT are the categories of adopters. Five categories are named by Rogers (2003) and these are innovators, early adopters, early majority, late majority, and laggards. The Diffusion of Innovation Theory (DIT) is relevant to this study because it explains how new media technologies are introduced, adopted and integrated into radio broadcasting practices. It helps to understand why some radio broadcasting professionals readily adopt technologies such as social media, online streaming platforms, smartphones and digital production tools, while others may adopt them gradually or resist them. The theory's five innovation characteristics; relative advantage, compatibility, complexity, trialability and observability, help explain the factors that influence the rate at which broadcast professionals accept and use new media technologies (Rogers, 2003). Therefore, DIT provides a useful framework for examining the adoption and utilisation of new media technologies in radio broadcasting in Akwa Ibom State.

METHODS

The study adopted a mixed-method research design, combining quantitative and qualitative approaches through a structured survey and in-depth interviews. The mixed-method approach was considered appropriate because it allows the strengths of one method to complement the limitations of the other, thereby providing a more comprehensive understanding of the influence of new media

technologies on radio broadcasting practices in Akwa Ibom State. The population of the study comprised 88 broadcast media professionals drawn from four selected radio stations in Akwa Ibom State: Radio Akwa Ibom 90.5 FM (27), Comfort 95.1 FM (19), Atlantic 104.5 FM (22), and Planet 101.1 FM (20). The study adopted a census approach, using the entire population of 88 broadcast professionals as the sample because the population was relatively small and manageable. Thus, no sub-sampling was required.

A non-probability, multi-stage sampling procedure was employed. Purposive sampling was first used to select the four radio stations based on their integration of new media technologies into broadcasting operations. Convenience sampling was subsequently used to select available and willing media professionals for the questionnaire survey. In addition, purposive sampling was used to select eight respondents, two from each station, for the in-depth interviews. The participants included reporters, anchors, producers, editors, news directors and other professionals involved in broadcasting and journalistic duties.

Two instruments were used for data collection: a structured questionnaire and a semi-structured interview guide. The questionnaire contained mainly close-ended questions measured using Likert and frequency scales and focused on the adoption, utilisation, influence and relevance of new media technologies, as well as factors affecting their adoption. The interview guide contained open-ended questions designed to obtain detailed information on participants' experiences, perceptions and challenges regarding the use of new media technologies. Data were collected directly from the selected radio stations. Questionnaires were personally administered and retrieved by the researcher, while face-to-face interviews were conducted with the selected participants. With their consent, the interviews were recorded and transcribed for analysis.

The validity of the research instruments was established through face and content validation by the project supervisor and communication experts. Their observations and recommendations were incorporated into the final instruments. Reliability was assessed through a pre-test involving media professionals outside the study population. A test-retest procedure was adopted, while Cronbach's Alpha was used to establish the internal consistency of the instrument.

For data analysis, quantitative data were analysed using SPSS version 23. Descriptive statistics, including frequencies, percentages, mean and standard deviation, were used to summarise the data. Pearson Product Moment Correlation (PPMC) was used to examine the relationship between new media technologies and broadcasting practices, while simple linear regression was used to determine the influence of facilitating conditions on technology adoption. Responses were measured on a four-point Likert scale, with a weighted mean benchmark of 2.5; mean scores of 2.5 and above were accepted, while scores below 2.5 were rejected. Qualitative interview data were analysed using thematic analysis, with NVivo 11 Pro used to organise and identify emerging themes from the transcribed interviews.

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

Data Presentation and Analysis

Table 1: Frequency of usage of New Media technologies

Items	Very often	Often	Rarely	Not at all	Weighted Mean score	Decision Rule
Internet (World Wide Web)	51	14	2	0	3.71	Accepted
Social media platforms (Facebook, X, Instagram, WhatsApp etc.)	64	3	0	0	3.95	Accepted
Live streaming services	20	32	12	3	3.02	Accepted
Online radio/mobile app	44	14	9	0	3.52	Accepted
Editing software packages (e.g. Adobe Audio Editing Suites)	25	36	4	2	3.25	Accepted
Mobile Phone SMS/Text Messaging Service	22	40	1	3	3.17	Accepted
Station playlist or other Studio playlist Software Packages	36	21	5	5	3.31	Accepted
Automation software packages (e.g. ChatGPT, OpenAI)	20	39	5	3	3.13	Accepted
Cloud storage	29	16	22	0	3.10	Accepted
Podcasting	18	27	13	9	2.80	Accepted
Web-cam live studio streaming	20	32	12	3	3.02	Accepted
Computers/ PCs/laptops/Tablets/Ipads	42	16	9	0	3.49	Accepted
Call Management System	15	17	23	12	2.55	Accepted
Stations website with interactive feedbacks	21	34	12	0	3.13	Accepted
Word Processor	47	13	7	0	3.59	Accepted
Smartphones	59	5	2	1	3.82	Accepted
Internet phone Calls	34	19	10	4	3.23	Accepted

Source: Field Survey, 2026

Table 1 shows that most new media technologies recorded mean scores above the acceptance benchmark, indicating frequent use in the selected radio stations. Social media platforms recorded the highest mean score (3.95), followed by Internet use (3.71) and

online radio/mobile applications (3.52). Editing software and automation tools also recorded acceptable mean scores, indicating their use in improving production efficiency and content quality. However, live streaming and call management systems recorded comparatively lower mean scores, suggesting less frequent use than social media and internet-based technologies.

Table 2: Influence of New Media Technologies on Broadcasting Practices

Items	Strongly agree	Agree	Disagree	Strongly Disagree	Weighted Mean score	Decision rule
New media technologies have changed how news is gathered in my station.	39	22	6	0	3.49	Accepted
Reporting has become faster due to the use of digital technologies.	41	22	4	0	3.55	Accepted
Social media has improved audience interaction during programmes.	43	18	6	0	3.55	Accepted
Live streaming has expanded the reach of our broadcasts.	42	16	7	2	3.46	Accepted
Digital tools have improved programme production quality.	38	27	2	0	3.53	Accepted
New media platforms have increased feedback from listeners.	30	21	12	4	3.14	Accepted

Source: Field Survey, 2026

Table 2 shows that all items recorded mean scores above the acceptance benchmark,

indicating that new media technologies positively influence broadcasting practices. Reporting speed and audience interaction recorded the highest mean scores of 3.55, showing improved news gathering, dissemination and listener engagement. Programme production

quality (3.53) and broadcast reach through live streaming (3.46) also recorded high scores, indicating improved quality and coverage. Increased listener feedback (3.14) further suggests that new media

technologies have strengthened participatory broadcasting and audience involvement.

Table 3 Perceptions of Broadcast Journalists

Items	Strongly agree	Agree	Disagree	Strongly disagree	Weighted Mean Score	Decision Rule
New media technology that facilitates audience participation is the best thing that has ever happened in broadcasting.	34	19	10	4	3.23	Accepted
I believe my professional performance is better enhanced through the use of new media technology.	40	16	11	0	3.43	Accepted
New technologies make radio broadcasting more innovative.	38	27	2	0	3.53	Accepted
The integration of digital tools improves journalism standards.	12	17	28	10	2.46	Accepted
I am comfortable using new media technologies in my work.	23	32	12	0	3.16	Accepted
The future of radio broadcasting depends largely on digital technologies	33	28	6	0	3.40	Accepted

Source: Field Survey, 2026

Table 3 presents respondents' perceptions regarding the relevance of new media technologies to broadcast journalism practice. The overall trend indicates favourable attitudes toward digital innovation. Most items recorded high mean scores, particularly those relating to improved professional performance (3.43) and increased innovation (3.53). Respondents also agreed that the future of radio broadcasting largely depends on digital technologies (3.40), suggesting awareness that survival in the industry requires technological adaptation.

Presentation of Data from Interviews

An examination of how broadcast journalists in Akwa Ibom State perceive these technologies was carried in a bid to understand trends and pattern of adoption in the context under investigation. Based on the interview responses, these interactive technologies can be grouped into two; whether it is text-based or whether it is audio-based. For the text-based interactive technologies, these are synchronous or quasi-synchronous social network sites of the Internet and the short message service (SMS) of the mobile phone. In this category, Facebook, X, Email, WhatsApp and mobile phone SMS are popular among broadcast journalists.

Table 4: Word query results of interactive technologies mentioned in the interview data

New media technologies	Tiers of broadcasting		Total Mentions
	Pubic	Private	
Social media	13	21	34
Mobile phone	12	7	19
Email	3	1	4

The data in Table 4 show the significance of interactive technologies as indicated in the interviewees' responses on the subject. Social media appeared to be the predominant technology for interactivity in the Nigerian context. This is followed by the two channels of mobile

phone (SMS and voice call). At least a mention of "mobile phone" and "Facebook" appeared in the responses of all the 8 interviewees with varied degrees of frequency and in relation to the interview questions. While 34 references were made by the interviewees in connection to the word social media, 19 instances of the word mobile phone were recorded in their transcribed interview data. Email appeared not to be popular as a technological tool for interactivity among Nigerian broadcast journalists.

Perceptions of Nigerian Broadcast Journalists

Theme 1: Perceived Usefulness: New Communication Technologies in (Newsgathering and Sourcing)

Based on the analyses, majority of the interviewees across the tiers of broadcasting responded convincingly regarding the relevance of new interactive technologies to journalistic routines. A senior level private broadcast journalist with a portfolio as a producer-presenter of some flagship participatory radio programmes with Comfort 95.1 FM explicitly confirmed that interactive technologies "have assisted the radio man in performing his roles." The broadcast journalist attributed relevance through perceived utilitarian value of new communication technologies to be a mutual goal between a broadcast journalist and his organisation, suggesting that use is a product of broadcast journalists' intention as well as the operational policy and mission of their organisation: "I've embraced most of the social media aspects, Instagram, Facebook, Twitter, text messages. As a station we believe that's the way to go." Five other interviewees made a total of 4 references which buttressed the "progressive", "transformative" and "revolutionising" perceptions of new digital interactive technologies in Nigerian broadcast journalism. A senior cadre journalist from a state government-owned broadcasting corporation also added that:

...we discovered that this has actually given life and credibility to the expression: mass communication...I want to believe information communication technologies has taken mass communication to another level, which in a nutshell has assisted very immensely in actuating freedom

of expression, freedom of association and what have you in furtherance of the UN Constitution.

Scheme of thematic coding indicates that perceived utilitarian value in relation to production in radio newsrooms is explicated under two sub-themes: speed and ease of production and cost effectiveness of production. These are presented in turn.

Speed and Ease of Production in Newsgathering and Sourcing Practices

In explicating this dimension of perceived use value with respect to improvements in newsgathering and sourcing practices, the focus of the thematic coding was on speed (time spent) and ease of completing the tedious journalistic task. These were found to enhance productivity in broadcast journalism with respect to newsgathering and sourcing practices. In the analyses, 4 interviewees who responded positively to the question seeking to know broadcast journalists' perceptions of interactive technologies mentioned speed in relation to news production and sourcing practices. For instance, a mid-career female broadcast journalist stressed that:

New media technology has enhanced even our performance. Let's look this scenario: before you are using 3-4 hours before you come back to package your report for the public, but now under 30 minutes before the completion of the assignment something is already going on-air. Are we going to say that is retrogression? No. we are progressing.

Another journalist who worked with a private/commercial FM radio station gave a positive response to why he perceived interactive technologies as important and relevant in contemporary newsgathering and sourcing in Nigerian broadcast journalism practice. He said:

If you ask me, I think it's one of the finest things that has happened to broadcast journalists or journalism as a profession. It is helping in the area of sourcing information; ... We can virtually get information at our fingertip. What requires a tedious process in the past – having to go round, before you travel and time constraint – it's all been taken care of with the social media. Now you can do everything within a second, within split second you can achieve results in minimum time. Technology assistance is enormous. Social media for instance is enormous to the media [broadcast] at the moment.

In the cause of newsgathering and sourcing, web activities such as browsing Internet search engines such as Google for word meaning, sifting through social network sites like Facebook and Twitter for news stories and for finding eye-witnesses' accounts of a news worthy event are now very common newsgathering and sourcing practices in Nigeria. Majority of the study respondents explicitly confirmed the centrality of Internet technology in broadcast journalism in Nigeria. One of the senior broadcast journalists in the service of FRCN/radio Nigeria claimed that: "It [Internet] has helped in the area of research, particularly when you need to have a global view of a particular issue."

Also, in view of newsgathering and sourcing practices such as on-the-spot and remote interview sessions with experts/news personalities, there were significant utilitarian value claims in the interviewees' adoption of new interactive platforms of the Internet. The improvement is such that time and geographic limitations are completely removed. With this, broadcast journalist can circumvent the risk of travelling to record expert opinions and rushing back to edit and include same in news bulletin. A senior broadcaster and

director of productions at an FRCN radio provided an insight into this phenomenon in Nigerian broadcast journalism, adding that "the risk of having to travel has been gradually reduced; so, it is much easier..."

Perceived Cost Effectiveness of News Production and Sourcing Practices

This aspect focuses on interviewees' beliefs toward the cost effectiveness of adopting new communication technologies. To this end, instances of reduction in cost of production as a result of deploying digital tools were coded for analyses in the responses of interviewees across the tier of broadcasting. A senior cadre broadcast journalist with a public broadcasting corporation in Uyo recounted what it used to be before the Internet and mobile phones:

when I joined the service, we had nearly all the major towns and cities we had reporters; Ibadan, Calabar, Abuja, Lagos – we had about 3 or 4, even as far as Kogi State. But now with the help of technology, we get whatever we want to get within a twinkle of a minute. So, you don't even need to deploy your reporters, equip them with all the gadgets or other things. Just get what you want to get... you can link up with other stations, through technology you get what you want to get within a twinkle of an eye. These technologies have really assisted us, reducing the cost of production.

At the same time for the journalists working on beats, the cost of transportation during newsgathering exercise has been greatly reduced if not totally eradicated due to these new technologies. With the dwindling advertising resources consequent upon competition and persistent economic downturn, broadcast journalists and their organisations have fallen on new technologies to save production costs. The cost effectiveness of using new communication technologies in broadcast journalism is also hinted in the response of one of the interviewees, adding that:

If you need to interview people without the use of the Internet in the olden days you have to travel. For instance, you have to travel; you spend money, you spend time traveling and energy doing the beat and of course the risk of traveling to that place is also to be considered. But now, you get your assignment down on time, the Internet makes such assignment faster, makes it easier and with no sweat at all...

Theme 2: Perceived Communication Value - Using New Digital Technologies for Interactivity and Audience Engagement

This theme examined the perceived improvements in broadcast journalism resulting from the use of digital communication technologies. It complements the perceived usefulness of these technologies by focusing on how increased interactivity has influenced radio broadcasting practice and the relevance of new media technologies to journalism in Nigeria. The analysis focused on the different forms of audience and professional engagement made possible through increased interactivity, as reflected in the interviewees' responses. It also explored how the use of new interactive technologies has changed broadcasting practices and created new opportunities for interaction. Based on the responses of the interviewees, the analysis identified the different forms of interactivity experienced by broadcast journalists in radio stations in Akwa Ibom State. These forms of interactivity are discussed under the sub-themes presented below:

Journalist-to-Audience Interactivity (Audience Engagement)

The replies of the interviewees are replete with significant evidence of journalist-to-audience interactivity. For instance, all the 8 interviewees had something to say regarding the significance of Internet's social network sites like Facebook, X formerly Twitter, TikTok and WhatsApp and the mobile phone in relation to radio broadcasting. Based on the analyses, perceived communication value of this form of interactivity ranged from audience cognitive assessment, contact maintenance to performance assessment of individual journalist with regards to their programmes. In view of these value claims, a senior cadre broadcast journalist who is affiliated with a private FM radio station commented that:

The listeners react to my comment. I use that to judge perception of the listeners: okay, this's the way they are thinking! So sometimes from that information gathered you want to change stereotype – the way people think – oh, this is the way they think on this subject, or I don't think they are right. So, you want to change stereotype. [And]... I intend to get some very, very critical and encouraging statements about some of the things I say.

Two dimensions of journalist-audience interaction are noticeable in the interview data, 1) interaction within the programme, that is while the programme is ongoing, and 2) interaction behind the programme, where engagement with audience goes beyond the programme. In addition, journalist-audience interaction provides broadcasters the opportunity of assessing the diversity of participation as they get to know which gender and age brackets and group are the active listeners. This perceived usefulness is succinctly captured in the detailed interview response of a senior broadcast journalist and station manager of one of the FM stations:

Now, the feedback you get what do you do with them? It's to check yourself what kind of issues, contents am I dishing out to my listeners, that is one. Two, how far is the reach of the station, are you reaching out... sometimes people call [the station's programme] us from Abuja and I keep wondering, "are you sure you are calling from Abuja, where are you in Abuja?" They will say ah, "they are calling from Mitama." This is to show that truly they are calling from there. On a good day, we are not expected to reach that far. But for you to check your reach, to check that are you really getting information out to people..., you know. And the feedback is also for you to actually look inward and put your house in order, things that you feel you are doing well, [but] that people feel you are not doing right. And they say, "ah this is not it," they call to say, "hello, is it that station...? Yes. This programme should not be in the afternoon, it should be in the evening." For you own, in your own thinking you feel afternoon is the best time you can put it out to people, but people are telling you no. by the time you are getting about 30 to 40 percent of the people saying it is wrong timing, it means that your timing is wrong, you just have to shift to suit the timing of the listeners. The feedback helps you to adjust yourself, to be able to know and balance your content. Sometimes your content might be imbalance; you might be one-sided with your content.

Direct-to-Newsroom Interactivity

At least two other forms of interactivity emerged during the analyses of qualitative interview data. These are instances of direct to newsroom interactions, where journalists speak directly to the expert

sources/news personalities. The other form is where broadcast journalists speak among themselves on an interactional yet professional scale. Several accounts of these forms of interactivity as exemplified in the narratives of interviewees. A top management staff at a state-owned broadcasting corporation in the State provided an insight:

In those days news used to be a straight-jacketed thing: you compile your bulletin; the newscaster is there to read whatever he's given and go home. But today even in the news of 30 minutes or one hour you can have as many as you want guests coming, you can throw the line open for calls. For instance, you can set three guests speaking with you while the news is on, you get across to them one after the other, the newscaster interacts with them, ask questions from them, they respond...

A senior broadcast journalist and director of programmes in a state-owned media corporation of Akwa Ibom State expressed an instance of:

Now, you can easily fast-track what you are doing in the newsroom down to just to the studios, just use some simple ICT equipment, transfer the whole thing to the studio, the same person that produced the news can now read the news, rather than having the reporter, all these proof-readers, and the messenger who will take it by road transport all that... We don't even need to move down, just send the whole thing through ICT, we'd just get it. So, it doesn't matter the time of number and all other thing...

Interactivity becomes particularly useful for across all newsroom communication scenarios. A scenario could present itself whereby a journalist working on a beat outside the newsroom/studio would have to correspond with their editors in newsrooms. Also, as a matter of urgency, especially during emergencies journalists do turn newsrooms/studios to control room where government agencies are called to action.

In the case of a journalist interacting directly with his colleague in the newsroom, a situation like this demands that a journalist who come across a newsworthy event especially during off-duty period would urgently seek interaction with their superiors in the newsroom in order to relay the urgent information. The news item may be included in the bulletin. And in some extremely urgent situation such newsworthy interaction could be aired live as public service announcement. Two senior reporters with the FRCN/Radio Nigeria in Uyo provided instances that corroborate direct-to-newsroom interactivity with regards to a network radio station, "it [interactive technologies] also assists professionals in getting their feedback and stories to the headquarters probably from correspondents outside where the stations are located." In another instance "It also helps us to keep in tune with the correspondent outside because there are situations whereby some correspondents may be faced with a difficult situation." Another journalist added that: Sometimes I text my oga [boss] that I am working on this [particular news story] and he would just text me back, "go ahead", when I give him the synopsis of whatever I am working on. So that's an example of interaction.

Test of Hypotheses

(H₀): There is no significant relationship between new media technologies and radio broadcasting practices in select radio stations in Akwa Ibom State.

Table 4: Relationship between new media technologies and radio

broadcasting practices in select radio stations in Akwa Ibom State

Variables	N	R	Sig. (2-tailed)	Decision
Adoption vs Practices	67	0.994	0.000	Reject Ho

Source: Field Survey, 2026

The Pearson Product Moment Correlation analysis revealed a correlation coefficient of $r = 0.994$ with a significance value of $p = 0.000$, which is less than the 0.05 level of significance. This indicates a very strong positive and statistically significant relationship between the adoption of new media technologies and radio broadcasting practices in the selected stations. The implication of this finding is that increased utilisation of new media technologies is strongly associated with improved broadcasting practices. In practical terms, stations that frequently use digital tools such as social media platforms, internet-based applications, streaming services, editing software, and automation systems tend to experience better operational efficiency, faster reporting, improved programme quality, and wider audience reach. Conversely, lower utilisation of such technologies corresponds with weaker broadcasting performance. Since the p -value is less than 0.05, the null hypothesis is rejected. Therefore, the study concludes that new media technologies significantly influence radio broadcasting practices in the selected radio stations.

Discussion of Findings

Extent of Utilisation of New Media Technologies in Radio Broadcasting Operations

The first research question sought to determine the extent to which the selected radio stations utilise new media technologies in their broadcasting operations. Findings from Table 1 revealed that virtually all the listed technologies recorded weighted mean scores above the acceptance benchmark of 2.5, an indication of a generally high level of adoption and use. Social media platforms recorded the highest mean score (3.95), followed closely by smartphones (3.82), the Internet (3.71), and online radio or mobile applications (3.52). This pattern suggests that broadcast professionals in Akwa Ibom State have moved decisively beyond the traditional, one-way model of radio transmission into a more networked mode of operation anchored on internet-based platforms.

This outcome aligns with the findings of Amadi, Efetobor and Joseph (2017), who, working with broadcast journalists in two radio stations in Uyo, found that private broadcasting stations in the state had, contrary to earlier scepticism about Nigeria's readiness for the digital switch-over, deployed new media technologies extensively and that staff possessed considerable technical know-how in their use. The convergence of the present findings with a study conducted in the same broadcasting environment nearly a decade apart suggests a sustained and even deepening trajectory of digital media utilisation among Akwa Ibom broadcast stations. The finding is also consistent with Obayi, Onyebuchi and Uwanuakwa (2018), who reported that 90 percent of journalists surveyed in Owerri, Imo State, had access to ICTs, reinforcing the broader picture that ICT access and use have become normalised among Nigerian broadcast professionals rather than remaining the preserve of a few early adopters.

The high adoption of social media in particular corroborates the work of Igyuve, Inobemhe, Udeh and Ugber (2020), whose study on the adoption and use of social media in the newsroom operations of selected Nigerian television stations similarly established that social

media had become deeply embedded in newsroom routines, giving media organisations the flexibility to reach audiences irrespective of scheduled broadcast times. Viewed against Rogers' (2003) Diffusion of Innovation Theory, which anchors this study, the high mean scores recorded for social media, smartphones, and internet facilities indicate that these particular technologies possess strong relative advantage, compatibility, and observability within the Akwa Ibom broadcasting environment, which are properties that Rogers identifies as accelerating the rate of adoption. By contrast, tools such as call management systems (2.55) and podcasting (2.80), though still above the acceptance benchmark, recorded comparatively modest scores, suggesting that these technologies remain at an earlier, more tentative stage of diffusion, consistent with the notion that not all innovations diffuse at the same pace within the same adopting population.

Influence of New Media Technologies on Radio Broadcasting Practices

The second research question examined the influence of new media technologies on broadcasting practices. Findings in Table 2 showed that all the measured items recorded mean scores above the benchmark, with reporting speed and audience interaction through social media both recording the highest scores (3.55), followed by improvements in programme production quality (3.53) and the expansion of broadcast reach through live streaming (3.46). This was reinforced by the outcome of the hypothesis test, where Pearson Product Moment Correlation analysis produced a very strong positive and statistically significant relationship between the adoption of new media technologies and broadcasting practices ($r = 0.994$, $p = 0.000$), leading to the rejection of the null hypothesis.

This finding resonates strongly with the qualitative accounts obtained from interviewees, several of whom described tangible reductions in production time, with one respondent noting that assignments that previously required three to four hours could now be completed and broadcast within thirty minutes. This mirrors the conclusion reached by Ogwuche (2017) in a study of convergence technology adoption at Brila FM, which found that convergence tools enabled journalists to obtain sports content rapidly from sources worldwide, thereby enhancing production efficiency. The consistency between the two studies, conducted in different broadcasting contexts but both within the Nigerian sports and mainstream radio sector, lends support to the view that speed of production is one of the most consistently reported benefits of new media adoption in Nigerian broadcasting.

The finding on improved audience interaction also aligns with Abubakar's (2024) study of the BBC World Service's engagement with Nigerian audiences, which found that multimedia strategies spanning radio, mobile phones, and social media significantly extended audience reach and deepened interactivity between broadcasters and listeners. Although the BBC operates on a considerably larger scale than the stations examined in this study, the underlying mechanism identified, namely that digital platforms compress the distance between broadcaster and audience and generate more immediate feedback loops, is the same dynamic reflected in the present study's interview data, where journalists described using listener comments to gauge programme reception, adjust scheduling, and assess geographic reach.

The strong statistical relationship between technology adoption and broadcasting performance further lends empirical weight to Oni's (2018) finding that perceived technological attributes and organisational support jointly predict broadcast journalists' intention

and actual use of new media technologies. Where Oni's study demonstrated this relationship at the level of individual journalists' behavioural intention, the present study extends the finding to the level of institutional broadcasting performance, showing that the relationship is not confined to individual usage patterns but is observable in the operational outcomes of the stations themselves.

Perceptions of Broadcast Journalists on the Relevance of New Media Technologies

The third research question addressed journalists' perceptions of the relevance of new media technologies to broadcast journalism practice. Findings in Table 3 showed generally favourable perceptions, with respondents agreeing that new technologies make radio broadcasting more innovative (3.53) and that professional performance is enhanced through their use (3.43). Respondents also agreed that the future of radio broadcasting depends largely on digital technologies (3.40), suggesting a widely shared recognition that technological adaptation is now a condition for continued relevance in the industry rather than an optional enhancement.

This finding is broadly consistent with Obayi, Onyebuchi and Uwanuakwa (2018), who found that 90 percent of journalists in Owerri strongly agreed that ICT had influenced how they carried out their duties. It also aligns with the interview evidence in the present study, where journalists across both public and private stations described new media technologies in markedly positive terms, variously characterising them as progressive, transformative, and revolutionising for the profession.

However, the finding regarding the item on whether digital tools improve journalism standards, which recorded the lowest mean score in Table 3 (2.46, just below the acceptance benchmark), together with the qualitative theme of the "double-edged" nature of new media technologies, complicates an otherwise favourable picture. Journalists in the present study expressed concern that reliance on social media for sourcing has, in some instances, encouraged a culture of replication and adaptation of existing content at the expense of original investigative work. This concern is consistent with Apata and Oluniyi's (2019) study of media social responsibility and the problematics of investigative journalism among media professionals in Osun State, which similarly identified structural and professional pressures undermining the practice of investigative journalism among Nigerian media practitioners. Taken together, these findings suggest that while broadcast journalists in Akwa Ibom State regard new media technologies as indispensable to contemporary practice, their perceptions are not uncritical; journalists appear conscious of a tension between the efficiency gains offered by these technologies and the erosion of certain normative journalistic values, a tension that reflects the dual character of technological change captured in Technological Determinism Theory, which holds that technology shapes social and professional practice without necessarily determining whether that shaping is wholly beneficial

Conclusion and Recommendations

On the basis of these findings, the study concludes that new media technologies have become firmly integrated into the operations of radio broadcasting in Akwa Ibom State and now significantly shape how news is gathered, produced, and disseminated, as well as how broadcast journalists relate with their audiences. While the overall impact of this technological shift is positive, its benefits are not yet fully maximised, being constrained by infrastructural and financial limitations, and are accompanied by emerging concerns about the

erosion of certain professional standards. Strengthening the enabling environment for these technologies, through improved infrastructure, adequate funding, and continuous skills training, is therefore essential if radio stations in the state are to fully harness the opportunities that new media technologies present, while safeguarding the core values of sound broadcast journalism practice. The study, therefore, recommends as follows:

- i. Radio stations in Akwa Ibom State should strengthen the use of digital platforms, particularly social media, internet services, online radio applications, live streaming and other less frequently used technologies to improve their broadcasting operations.
- ii. Stations should provide adequate digital facilities and training to improve broadcasting practices; and
- iii. Management of radio stations in Akwa Ibom State should encourage responsible use of digital platforms by strengthening information verification and professional journalism practices, in order to prevent content replication and protect the quality and credibility of broadcast journalism.

References

1. Aboh, E. E., Amah, F. O., & Asemah, E. S. (2021). Perception and responsiveness to NCDC COVID-19 SMS among Edo State residents. In E. S. Asemah, M. Osemeke, F. I. Ohiokha, M. I. Oaikhen, K. Ola, & E. Okwudiri (Eds.), *Communication, economics, finance, administration and governance in a pandemic* (pp. 23–32). Samuel Adegboyega University.
2. Abubakar, A. T. (2024). Mobile telephony and changing patterns of audiences' engagement with global media in Africa. *Global Media and Communication*, 20(1), 71–89. <https://doi.org/10.1177/17427665241235481>
3. Ajibulu, O. A., & Asemah, E. S. (2021). Contributions of social media to the mobilisation of youth for the 2020 EndSARS protest in Nigeria. In E. S. Asemah (Ed.), *Communication, pandemic and civil unrest in Nigeria* (pp. 231–239). Franklead Press.
4. Ala-Fossi, M. (2013). Development of digital radio broadcasting in Europe. In *Radio in the digital era: Stability, transformation or new age?* (pp. 1–32). Telecom ParisTech.
5. Amadi, R. N., Efetobor, O. E., & Joseph, B. (2017). Reshaping modern broadcasting in Nigeria through adoption of evolving new media technologies. *International Journal of Innovations in Social Science, Arts and Management*, 7(2).
6. Apata, K., & Ogunwuyi, S. O. (2019). Media social responsibility and the problematics of investigative journalism among media professionals in Osun State, Nigeria. *Research Journal of Mass Communication and Information Technology*, 5(3), 1–22.
7. Atkin, D. J., Hunt, D. S., & Lin, C. A. (2015). Diffusion theory in the new media environment: Toward an integrated technology adoption model. *Mass Communication and Society*, 18(5), 623–650. <https://doi.org/10.1080/15205436.2015.1066014>

8. Bermejo, F. (2009). Audience manufacture in historical perspective: From broadcasting to Google. *New Media & Society*, 11(1–2).
<https://doi.org/10.1177/1461444808099579>
9. Bolter, J. D., & Grusin, R. A. (1999). *Remediation: Understanding new media*. MIT Press.
10. Bonini, T., & Monclús, B. (2014). *Radio audiences and participation in the age of network society*. Routledge.
<https://doi.org/10.4324/9781315815190>
11. Castells, M. (2001). *The Internet galaxy: Reflections on the Internet, business, and society*. Oxford University Press.
12. Eludu, S., Mbazie, S., & Ndinojuo, B.-C. E. (2016). Application of ICT in television broadcasting: A study of NTA Port Harcourt. *International Journal of Science Invention Today*, 5(2), 169–182.
13. Harliantara. (2024). Adaptation of digital technology in radio stations in Indonesia. *Indonesian Journal of Business Analytics*, 4(3), 1324–1335.
<https://doi.org/10.55927/ijba.v4i3.9721>
14. Harlita, N., Nindhasari, H., Harliantara, Zulaikha, & Nurannafi, F. S. M. (2024). Radio broadcasting trends: A case study of broadcast content distribution platforms. *ISIR Journal of Arts, Humanities and Social Sciences*, 1(3), 6–14. <https://doi.org/10.5281/zenodo.14169718>
15. Igyuve, A., Inobemhe, K., Udeh, N. S., & Ugber, F. (2020). A discourse on the use of new media technologies in Nigerian television newsrooms. *International Journal of Social Sciences and Management Review*, 3(6), 248–265.
<https://doi.org/10.37602/IJSSMR.2020.3529>
16. Ismed, M. (2020). The changes and innovation of radio media in the digital era. *MEDIASI Jurnal Kajian dan Terapan Media, Bahasa, Komunikasi*, 1(2), 92–102.
<https://doi.org/10.46961/mediasi.v1i2.37>
17. Obayi, P. M., Onyebuchi, A. C., & Uwanuakwa, P. C. (2018). Journalist's perception of the influence of ICT in enhancing journalism practice in Owerri, Imo State. *ESUT Journal of Media Studies*.
18. Ogwuche, P. O. (2017). *Adoption of convergence technology for sports journalism: A study on Brila 88.9 FM* [Master's dissertation, Ahmadu Bello University].
19. Oladele, V. I., & Asemah, E. S. (2022). Digital democracy as panacea to Nigeria's ailing electoral and democratic institutions. In E. S. Asemah, D. O. Ekharefo, & T. Santas (Eds.), *Thoughts on political communication in Nigeria* (pp. 21–32). University Press.
20. Oni, O. P. (2018). *An exploratory study of new media adoption for participatory programming in southwest Nigeria's radio stations* [Doctoral thesis, University of Salford].
21. Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press.