

DIGITAL DISRUPTION: ASSESSING THE CHALLENGES OF NEW MEDIA TECHNOLOGIES TO TRADITIONAL BROADCASTING IN NIGERIA

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Abstract

This study assessed the challenges posed by new media technologies to broadcasting in Nigeria, with particular reference to Alheri Radio, Zaria and Queen FM, Zaria. The study was guided by three objectives: to examine the influence of new media technologies on broadcasting activities, to identify the challenges new media technologies posed to traditional radio stations and to find-out the strategies adopted by the selected radio stations to cope with these challenges. The study was anchored on Technological Determinism Theory. A Census Research Design was adopted involving the entire population of 41 staff members from Alheri Radio, Zaria and Queen FM, Zaria. The findings revealed that new media technologies have significantly improved broadcasting activities through enhanced audience engagement, faster dissemination of information, improved content delivery, and greater operational efficiency. The study also discovered that the major challenges confronting traditional radio stations include migration of audiences to online platforms, high cost of adopting digital technologies, inadequate technical skills, and poor internet connectivity. Furthermore, the findings showed that the stations have adopted various strategies to remain competitive, including social media engagement, online streaming services, ICT training for staff, content innovation, and the integration of digital production tools into their broadcasting operations. The study concluded that although new media technologies have transformed

broadcasting and improved service delivery, they have also intensified competition and reduced the relevance of conventional radio broadcasting. The study recommended that broadcasting organizations should invest more in digital infrastructure, provide continuous ICT training for staff, strengthen their online presence through social media and streaming platforms, and develop innovative content capable of attracting and retaining audiences in the digital era.

Keywords: Digital Disruption, Assessment, Challenges, New Media Technologies, Traditional Broadcasting

Introduction

The rapid advancement of digital communication technologies has significantly transformed the media and broadcasting industry across the world. Traditionally, broadcasting depended largely on conventional media platforms such as radio and television to disseminate information to a wide and heterogeneous audience. These traditional media channels were characterized by one-way communication, where information flowed from the broadcaster to the audience with limited feedback mechanisms (McQuail, 2016). The author further confirmed that the emergence of digital technologies, particularly the internet and mobile communication has revolutionized the media landscape by introducing more interactive and participatory forms of communication. According to McQuail (2010), the transformation brought by digital technologies has altered the structure, operation, and influence of mass media institutions globally.

New media technologies such as social networking platforms, blogs, podcasts, online streaming services, and digital broadcasting systems have reshaped how information is produced, distributed, and consumed. These technologies provide faster, cheaper, and more flexible means of communication compared to traditional broadcasting platforms. They also allow users to become content creators rather than mere consumers of information (Lievrouw & Livingstone, 2018). Flew (2014) explains that the defining feature of new media is interactivity, which enables audiences to participate actively in the communication process by commenting, sharing,

and generating content online. As a result, communication has shifted from a centralized model dominated by large media organizations to a decentralized model that allows individuals and small groups to disseminate information globally.

Widadi et al (2026) noted that the growth of digital technologies has also significantly influenced audience behaviour and media consumption patterns. Audiences, particularly young people, increasingly prefer digital platforms because they offer on-demand access to information and entertainment. Unlike traditional radio and television broadcasting that follow fixed schedules, new media platforms allow users to select the type of content they want and access at their convenience. According to Castells (2013), the development of the network society has enabled audiences to become more autonomous in choosing and interacting with media content, thereby reducing their dependence on traditional broadcasting systems.

In many parts of the world, including developing countries, the broadcasting industry has been compelled to adapt to these technological changes in order to remain relevant. Broadcasting organizations now integrate digital platforms into their operations by streaming programs online, engaging audiences through social media, and developing mobile applications (Ezeaku, 2024; Anshemeza & Isabirye, 2023). Jenkins (2016) noted that media convergence has become a major feature of the modern communication environment, where traditional and digital media platforms coexist and interact to reach wider audiences. This convergence has created both opportunities and challenges for broadcasters as they attempt to compete in a rapidly evolving digital ecosystem.

In Nigeria, the broadcasting sector has experienced remarkable transformation due to the expansion of internet connectivity, smartphone usage, and social media platforms. The country has witnessed an increase in the number of online news platforms, digital radio stations, and streaming services that provide alternative sources of information and entertainment to

the public (Ezeaku, 2024; Gillwald, Mothobi, & Rademan, 2019). According to Asemah, Edegoh, and Ojih (2017), the Nigerian media landscape has become more competitive as traditional broadcasters now compete with digital platforms for audience attention and advertising revenue. This competition has compelled many broadcasting organizations to rethink their operational strategies.

Radio stations in Nigeria, which were once the dominant medium of mass communication, are now facing intense competition from new media technologies. Social media platforms such as Facebook, X (Twitter), Instagram, and YouTube allow individuals and organizations to share information instantly with a global audience. Online streaming services and podcasts also provide audiences with alternative ways to access audio content without relying on conventional radio broadcasts (Shaibu, 2016; Asekun-Olarinmoye, Sunusi, Johnson, & Oloyede, 2023). Dominick (2013) observes that digital media platforms have blurred the boundaries between traditional broadcasting and online communication, thereby creating a highly competitive media environment.

Despite these challenges, radio broadcasting continues to play a vital role in Nigeria's communication system. Radio remains one of the most accessible and affordable media platforms, particularly in rural communities where internet access may be limited. It also has the advantage of reaching a large audience simultaneously and providing information in local languages that are easily understood by the public (Ate and Ikerodah, 2012; Seidu, Mohammed, & Adams, 2011; Chiakaan, 2013). According to Oso (2012), radio remains a powerful tool for education, information dissemination, and social mobilization in developing countries because of its wide reach and low cost.

However, the integration of new media technologies into broadcasting operations presents several challenges for radio stations. These challenges include the need for modern broadcasting equipment, skilled

technical personnel, stable internet connectivity, and adequate regulatory frameworks to manage digital broadcasting activities. In addition, broadcasters must constantly update their technological infrastructure to keep pace with rapidly evolving communication technologies (Ezeaku, 2024; Olajide, 2022). Baran and Davis (2015) emphasize that media organizations must continually innovate and adopt new technologies in order to remain competitive in the digital age.

Salihu (2026) noted that local broadcasting stations such as Alheri Radio, Zaria and Queen FM, Zaria operate within this rapidly changing technological environment. These stations play an important role in providing news, education, cultural programs, and entertainment to the people of Zaria and surrounding communities. They also serve as platforms for public discourse and community engagement. However, like many traditional broadcasters, they face challenges arising from the increasing popularity of digital media platforms that attract younger audiences. According to Asemah (2011), local radio stations in Nigeria must adapt to technological changes by integrating digital media strategies into their broadcasting activities.

Therefore, the increasing influence of new media technologies presents both opportunities and challenges for the broadcasting industry in Nigeria. While digital technologies provide new avenues for content distribution and audience engagement, they also create intense competition for traditional broadcasters. Consequently, it becomes necessary to assess how local radio stations are responding to these changes. This study therefore assessed the challenges posed by new media technologies to traditional broadcasting in Nigeria, with particular reference to Alheri Radio Zaria and Queen FM Zaria, and to identify strategies these stations are adopting to remain relevant in the evolving media environment.

Statement of the Problem

The emergence of new media technologies has created both opportunities and challenges for traditional broadcasting organizations. While these technologies provide faster and more interactive ways of disseminating information, they also threaten the relevance of conventional radio broadcasting. Many radio stations in Nigeria are experiencing a decline in audience patronage as listeners shift to digital platforms such as social media, internet radio, and online streaming services. These platforms provide instant access to diverse contents and allow users to interact directly with information producers.

Another challenge is the high cost of upgrading broadcasting equipment and infrastructure to meet digital standards. Many local radio stations lack adequate financial resources and technical capacity to adopt modern technologies. This situation affects the quality of programming, transmission, and competitiveness of traditional radio stations. This development threatens the financial sustainability of many broadcasting organizations. Despite these challenges, there is limited research focusing on how local radio stations in Nigeria are coping with the impact of new media technologies. Based on the above background, this study assessed the challenges posed by new media technologies to traditional broadcasting in Nigeria, with particular focus on Alheri Radio, Zaria and Queen FM, Zaria.

Objectives of the Study

1. To examine the influence of new media technologies on broadcasting activities in Nigeria especially in Alheri Radio, Zaria and Queen FM, Zaria.
2. To identify the challenges new media technologies posed to traditional radio stations such as Alheri Radio, Zaria and Queen FM, Zaria.
3. To find out the strategies adopted by Alheri Radio, Zaria and Queen FM, Zaria in response to the challenges of new media technologies on

broadcasting in Nigeria.

Research Questions

1. How do new media technologies influence broadcasting activities in Nigeria especially in Alheri Radio, Zaria and Queen FM, Zaria?
2. What challenges do new media technologies pose to traditional radio stations such as Alheri Radio, Zaria and Queen FM, Zaria?
3. What strategies have Alheri Radio, Zaria and Queen FM, Zaria adopted in response to the challenges of new media technologies on broadcasting in Nigeria?

Review of Relation Literature

New Media Technologies and Broadcast Convergence

Broadcast convergence refers to the integration of traditional broadcasting systems with digital and internet-based technologies, resulting in the blending of different forms of media into a unified communication platform. This phenomenon is largely driven by the emergence of new media technologies, which have transformed how content is produced, distributed, and consumed (Meikle & Young, 2021). One key aspect of broadcast convergence is the merging of radio, television, and online platforms. Traditional broadcasters now deliver content not only through terrestrial signals but also via websites, mobile applications, and social media platforms. This allows audiences to access content across multiple devices, including smartphones, tablets, and computers (Napoli, 2019).

Another important dimension of convergence is content integration. Media organizations can produce a single piece of content and distribute it across various platforms simultaneously. For example, a radio program can be broadcast live, streamed online, uploaded as a podcast, and shared on social media. This multiplatform approach increases audience reach and enhances content visibility (Meikle & Young, 2021). Technological convergence has also led to changes in newsroom practices and media operations. Journalists are now required to possess multiple skills, including

writing, audio and video production, and digital editing. This has given rise to multimedia journalism, where content is created for diverse platforms using integrated technologies (Vos & Russell, 2019).

However, broadcast convergence also presents challenges, including the need for continuous technological upgrades, increased competition, and the demand for skilled personnel. Media organizations must invest in digital infrastructure and training to effectively manage converged media systems (Flew, 2021). Despite these challenges, broadcast convergence remains a vital strategy for media organizations seeking to remain relevant in the digital age. It enables broadcasters to adapt to changing audience preferences and leverage the opportunities provided by new media technologies to enhance communication and service delivery (Meikle & Young, 2021).

New Media Technologies in Broadcasting

New media technologies have become an integral part of modern broadcasting, transforming how content is produced, distributed, and consumed. These technologies, driven by digital innovation and internet connectivity, have enabled broadcasters to expand beyond traditional transmission methods into more dynamic and interactive platforms (Flew, 2021; Meikle & Young, 2021). One of the major ways new media technologies influence broadcasting is through online streaming. Radio and television stations can now stream their programs live over the internet, allowing audiences to access content from any part of the world. This has removed geographical barriers that previously limited the reach of traditional broadcasting systems (Couldry & Hepp, 2018).

Another significant development is the integration of social media into broadcasting operations. Platforms such as Facebook, YouTube, and Instagram are now used by broadcasters to share content, promote programs, and interact with audiences in real time. This has enhanced audience engagement and provided opportunities for immediate feedback and participation (Klinger & Svensson, 2018). Podcasting is also an important

aspect of new media technologies in broadcasting. Broadcasters now convert their programs into download able audio content, allowing audiences to listen at their convenience. This on-demand feature has changed audience listening habits and increased content accessibility (Cunningham & Craig, 2019). Mobile technology has further strengthened the role of new media in broadcasting. With smartphones and mobile applications, users can access live broadcasts, recorded programs, and multimedia content anytime and anywhere. This mobility has made broadcasting more flexible and user-centred (Flew, 2021).

Despite these advancements, the integration of new media technologies into broadcasting in Nigeria faces challenges such as poor internet connectivity, high cost of data, and limited technical expertise. These challenges can hinder the effective use of digital platforms by broadcasters (International Telecommunication Union, 2023). Nevertheless, new media technologies continue to reshape broadcasting by promoting innovation, expanding audience reach, and enhancing content delivery. Broadcasters who effectively adopt these technologies are better positioned to remain competitive in the evolving media landscape (Meikle & Young, 2021).

The Place of New Media in Broadcasting

The place of new media in broadcasting has become increasingly significant in the digital age, as it plays a central role in shaping modern communication practices. New media technologies have moved from being supplementary tools to becoming essential components of broadcasting operations (Couldry & Hepp, 2018). One important role of new media in broadcasting is its ability to complement traditional media. Rather than completely replacing radio and television, new media platforms work alongside them to enhance content distribution and audience engagement. Broadcasters now use digital platforms to extend the lifespan and reach of their programs (Meikle & Young, 2021). New media also serves as a platform for audience interaction and participation. Through social media and online

forums, audiences can share their opinions, contribute content, and engage directly with broadcasters. This has transformed the communication process from a one-way model to a more participatory and interactive system (Sundar, 2020).

Furthermore, new media plays a crucial role in content diversification. Broadcasters can produce and distribute various types of content, including live streams, podcasts, videos, and multimedia presentations. This diversity caters to different audience preferences and enhances overall user experience (Cunningham and Craig, 2019; Flew, 2021). Additionally, new media contributes to the globalization of broadcasting by enabling content to reach international audiences. This has created opportunities for cultural exchange and increased visibility for local media content on the global stage (Couldry & Hepp, 2018;).

However, the growing importance of new media in broadcasting also raises concerns such as content regulation, misinformation, and the decline of traditional media revenue. These issues highlight the need for effective policies and strategies to ensure a balanced integration of new and traditional media systems (International Telecommunication Union, 2023). New media occupies a central and indispensable place in modern broadcasting. Its ability to enhance communication, foster interaction, and expand audience reach makes it a vital component of the contemporary media landscape. Broadcasters must therefore embrace and effectively utilize new media technologies to remain relevant and sustainable in the digital era (Meikle & Young, 2021).

Barriers to the Effective Use of New Media Technologies in Nigeria

Despite the numerous advantages associated with new media technologies, their effective utilization in Nigeria is constrained by several structural, economic, and socio-cultural barriers. These challenges limit the ability of broadcasting organizations and individuals to fully harness the potential of digital communication tools (Waisbord, 2020). One of the major

barriers is inadequate infrastructure, particularly poor internet connectivity and limited broadband penetration. Although internet usage has increased in Nigeria, access remains uneven, especially in rural areas where network coverage is weak or unreliable. This limits the reach and effectiveness of new media platforms for broadcasting purposes (Nigerian Communications Commission, 2022).

Another significant challenge is the high cost of data and digital devices. Many Nigerians cannot afford smartphones, computers, or the cost of internet subscriptions required to access new media platforms. This economic barrier restricts participation in digital communication and reduces the audience base for online broadcasting services (Napoli, 2019). Irregular power supply is also a major obstacle to the effective use of new media technologies. Frequent power outages disrupt broadcasting operations and limit the ability of both media organizations and audiences to access digital content consistently. This challenge increases operational costs, as organizations often rely on alternative power sources such as generators (Asemah, 2011).

Low level of digital literacy among certain segments of the population further hinders the adoption of new media technologies. Many individuals lack the necessary skills to effectively use digital devices and online platforms, which affects their ability to access and engage with media content (Couldry & Hepp, 2018). Regulatory and policy challenges also pose barriers to the effective use of new media technologies in Nigeria. Issues such as lack of clear regulatory frameworks, government restrictions, and concerns over content control can limit innovation and freedom of expression in the digital space (Flew, 2021). The spread of misinformation and fake news on digital platforms presents a significant challenge. The lack of effective content verification mechanisms can undermine the credibility of information shared through new media, thereby affecting public trust in digital broadcasting (Waisbord, 2020). Despite these barriers, efforts are

being made by government agencies and private organizations to improve digital infrastructure, promote digital literacy, and create supportive policies. Addressing these challenges is essential for maximizing the benefits of new media technologies in Nigeria's broadcasting sector (International Telecommunication Union, 2023).

Theoretical Framework

This study is anchored on Technological Determinism Theory, which has its roots in the late 19th and early 20th centuries, particularly during the Industrial Revolution, when scholars began to examine how technological innovations shape society. Early ideas were influenced by thinkers such as Karl Marx, who argued that tools and modes of production significantly influence social relations and structures. The theory gained prominence in the 1960s through the work of Marshall McLuhan, who introduced the famous idea that “the medium is the message”, emphasizing that the nature of media technology itself plays a central role in shaping human perception and social organization. Later scholars like Raymond Williams critiqued this perspective, arguing that technology does not operate independently of social, cultural, and economic contexts.

Over time, Technological Determinism evolved through different phases, including hard determinism, which views technology as the primary force driving societal change with minimal human control, and soft determinism, which acknowledges the influence of human choices and social factors alongside technology. In the contemporary digital era, the theory has been extended to explain how innovations such as the internet, artificial intelligence, and social media platforms reshape communication patterns, media production, and audience engagement. The theory is built on several key assumptions: that technology drives social change; that media technology shapes human perception; that technological development is inevitable; that changes in communication technology alter social structures; that technology influences culture and values; and that the evolution of media

determines communication patterns, shifting from traditional one-way broadcasting to more interactive and participatory forms.

Despite its relevance, Technological Determinism has been widely criticized for overemphasizing the role of technology while neglecting other important factors such as social, political, and economic influences. Critics also argue that it underestimates human agency and presents a simplistic cause-and-effect relationship between technology and society. Additionally, the theory has been criticized for cultural bias, as it may not adequately explain media development in diverse contexts, particularly in developing countries. Scholars such as Silvio Waisbord emphasize that media systems are shaped by multiple interacting forces beyond technology alone.

In relation to this study, Technological Determinism Theory provides a strong theoretical foundation by explaining how advancements in media technology directly influence broadcasting systems. The emergence of internet broadcasting, social media platforms, and mobile communication technologies have significantly transformed traditional broadcasting practices in Nigeria. Radio stations such as Alheri Radio, Zaria and Queen FM, Zaria have increasingly adopted digital platforms, including online streaming and social media engagement, to remain relevant. Consequently, broadcasting has shifted from a one-way communication model to a more interactive and participatory system where audiences actively create and share content. The theory also explains the challenges faced by broadcasters, including increased competition from digital platforms, declining traditional audiences the need for continuous technological adaptation, and the high cost of digital transformation. Therefore, Technological Determinism illustrates that these challenges are largely the direct outcomes of technological evolution.

Technological Determinism Theory has been widely discussed in media and communication studies, with several scholars affirming and critiquing its central claim that technology is a primary driver of social

change. One of the most influential contributors is Marshall McLuhan, who argued that media technologies are not neutral tools but active forces that reshape human perception and social organization. His famous assertion that *"the medium is the message"* suggests that the form of communication technology is more influential than the content it carries. According to McLuhan (1964), each technological advancement restructures how people think, behave, and interact, thereby transforming society itself.

In conclusion, Technological Determinism remains a valuable framework for understanding the impact of new media technologies on broadcasting. Although it may overlook certain social factors, it effectively highlights the central role of technology in shaping media systems and communication practices, particularly within Nigeria's rapidly evolving digital landscape.

Research Methodology

For the purpose of this study, Census Research Method was adopted. According to Kothari (2020) Census Method refers to a complete enumeration of all items in the population in which no element is left out. The population of this study is the entire staff of Alheri Radio, Zaria and Queen FM, Zaria. In which Alheri Radio, Zaria has 18 staff and Queen FM, Zaria has 23 staff in Zaria Local Government Area of Kaduna state (Sulaiman, 2026). Fisher (2019) says "population refers to the entire group of subjects which the researcher is investigating".

The sample size of 41 respondents was drawn from Alheri Radio, Zaria and Queen FM, Zaria for the purpose of this study. According to Ajayi (2019) sample size is defined as a process of selecting a portion of the population for the purpose of generalizing the findings about the sample itself. Due to the small number of the population, this study therefore adopts census study of all the entire population of Alheri Radio, Zaria and Queen FM, Zaria, which total to 41 respondents. The study also adopted questionnaire as the instrument for data collection, therefore 41 questionnaires were printed and distributed to the study area.

Data Analysis and Interpretation

Table 1: Use of New Media Technologies in Broadcasting Activities

Responses	Frequency	Percentage
Yes	35	85.4%
No	6	14.6%
Total	41	100%

Table 1 shows that 35 respondents (85.4%) use new media technologies (such as social media and online streaming) in their broadcasting activities, while 6 respondents (14.6%) do not. This indicates that 85.4% of the respondents actively integrate new media tools into their professional practice, implying a high level of adoption of digital broadcasting technologies. The implication is that the study findings largely reflect the experiences of broadcasters who are already engaged with new media platforms, which may enhance the relevance of the results to modern broadcasting practice, while the relatively small proportion of non-users has minimal influence on the overall outcome.

Table 2: Extent New Media Technologies have Improved Broadcasting Activities

Responses	Frequency	Percentage
Very High	18	43.9%
High	15	36.6%
Moderate	6	14.6%
Low	2	4.9%
Very Low	0	0%
Total	41	100%

Table 2 reveals that 18 respondents (43.9%) rated the improvement as very high, 15 respondents (36.6%) rated it high, while 6 respondents (14.6%) rated it moderate. Only 2 respondents (4.9%) rated it low, and none rated it very low. This implies that new media technologies have significantly improved broadcasting activities in the stations with 43.9%. The implication is that the findings reflect a generally favourable perception of new media adoption, suggesting that digital technologies have significantly enhanced efficiency, content delivery, and audience engagement, with minimal negative assessment from respondents.

Table 3: Major Challenges posed by New Media Technologies

Responses	Frequency	Percentage
Loss of audience to online platforms	17	41.5%
High cost of technology adoption	9	22.0%
Lack of technical skills	8	19.5%
Poor internet connectivity	5	12.2%
Others	2	4.9%
Total	41	100%

Table 3 shows that 17 respondents (41.5%) identified loss of audience to online platforms as the major challenge, 9 respondents (22.0%) indicated high cost of technology adoption, while 8 respondents (19.5%) stated lack of technical skills. Also, 5 respondents (12.2%) selected poor internet connectivity, while 2 respondents (4.9%) mentioned other challenges. This indicates that loss of audience to online platforms is the most significant challenge with 41.5%. The implication is that while new media technologies enhance broadcasting efficiency, they also create competitive pressure on conventional stations by shifting audience attention to online platforms, thereby affecting reach and viewership.

Table 4: Do New Media Technologies reduce the Relevance of Traditional Radio Broadcasting?

Responses	Frequency	Percentage
Yes	28	68.3%
No	13	31.7%
Total	41	100%

Table 4 reveals that 28 respondents (68.3%) agreed that new media technologies reduce the relevance of traditional radio broadcasting, while 13 respondents (31.7%) disagreed. This shows that 68.3% of the respondents believe that traditional radio broadcasting is being significantly challenged by the rise of new media technologies, implying that digital platforms are increasingly reshaping audience preferences and media consumption patterns. The implication is that traditional radio stations may need to adapt by integrating new media tools into their operations in order to remain relevant and competitive in the evolving broadcasting landscape.

Table 5: Integration of New Media Technologies into Broadcasting Operations

Responses	Frequency	Percentage
Yes	34	82.9%
No	7	17.1%
Total	41	100%

Table 5 shows that 34 respondents (82.9%) agreed that their station integrates new media technologies into its broadcasting operations, while 7 respondents (17.1%) disagreed. This indicates that 82.9% of the respondents confirmed the integration of new media technologies in their stations, implying a strong institutional adoption of digital tools in broadcasting practices. The implication is that most broadcasting stations have embraced technological advancement to enhance efficiency, content delivery, and audience engagement, although a small proportion of respondents' disagreement suggests that the level of integration may not be uniform across all departments or operations.

Table 6: Strategies adopted by the Stations to Cope with New Media Challenges

Responses	Frequency	Percentage
Social media engagement	14	34.1%
Online streaming services	10	24.4%
Staff training in ICT	9	22.0%
Content innovation	6	14.6%
Others	2	4.9%
Total	41	100%

Table 6 reveals that 14 respondents (34.1%) identified social media engagement as the major strategy adopted by their station, 10 respondents (24.4%) indicated online streaming services, while 9 respondents (22.0%) selected staff training in ICT. Furthermore, 6 respondents (14.6%) mentioned content innovation, while 2 respondents (4.9%) selected other strategies. This shows that 34.1% of the respondents considered social media engagement as the most adopted strategy, implying that broadcasting stations mainly rely on interactive online platforms to adapt to new media challenges. The implication is that stations are increasingly prioritizing audience engagement

through social media to maintain relevance and competitiveness, while also complementing this with streaming services, capacity building, and content innovation to strengthen overall broadcasting performance.

Table 7: Ways Stations integrate New Media tools to Overcome Operational Challenges

Responses	Frequency	Percentage
Social media integration (live updates and posting)	15	36.6%
Live streaming of programmes	10	24.4%
Audience interaction and feedback systems	8	19.5%
Use of digital production/editing tools	5	12.2%
Online news distribution platforms	3	7.3%
Total	41	100%

Table 7 shows that 15 respondents (36.6%) stated that their stations integrate new media tools mainly through social media updates and posting of content. 10 respondents (24.4%) indicated the use of live streaming services, while 8 respondents (19.5%) reported audience interaction and feedback systems as a key method. Furthermore, 5 respondents (12.2%) highlighted the use of digital production and editing tools, while 3 respondents representing 7.3% mentioned online news distribution platforms. This shows that 36.6% of the respondents identified social media engagement as the most common method of integrating new media tools, implying that the stations primarily rely on social media platforms to enhance communication, speed of information dissemination, and audience reach. The implication is that broadcasting operations are increasingly becoming more interactive and digitally driven, with social media serving as the central channel for content delivery and audience engagement, while other tools complement these efforts in strengthening overall media performance.

Discussion of Findings

Research Question One: *How do new media technologies influence broadcasting activities in Nigeria especially in Alheri Radio, Zaria and Queen FM, Zaria?*

The findings from Tables 1, 2, and 5 reveal that new media technologies have a significant positive influence on broadcasting activities

in Nigeria. Table 1 shows that 35 respondents (85.4%) use new media technologies in their broadcasting activities, indicating a high level of adoption among broadcasters. This finding agrees with the view of the Technology Acceptance Theory (TAM), which posits that users are more likely to adopt technologies they perceive as useful and beneficial to their work performance. The high usage rate suggests that broadcasters recognize the value of new media tools in improving their operations. In line with this, Ezeaku (2024); Anshemeza and Isabirye (2023) noted that in many parts of the world, including developing countries, the broadcasting industry has been compelled to adapt to these technological changes in order to remain relevant. Broadcasting organizations now integrate digital platforms into their operations by streaming programs online, engaging audiences through social media, and developing mobile applications.

Furthermore, Table 2 indicates that 18 respondents (43.9%) rated the improvement in broadcasting activities as very high, while 15 respondents (36.6%) rated it high. This implies that new media technologies have enhanced communication speed, content dissemination, audience participation, and operational efficiency. This finding supports the work of scholars who argued that digital media platforms have transformed broadcasting by enabling real-time interaction and wider audience reach. Jenkins (2016) noted that media convergence has become a major feature of the modern communication environment, where traditional and digital media platforms coexist and interact to reach wider audiences.

Similarly, Table 5 shows that 34 respondents (82.9%) agreed that their stations integrate new media technologies into broadcasting operations. This finding confirms that broadcasting stations have embraced digital transformation to remain relevant in the modern media environment. Therefore, this study established that new media technologies have positively influenced broadcasting activities through improved efficiency, accessibility, interactivity, and audience engagement. Ezeaku (2024); Anshemeza and

Isabirye (2023) supported that broadcasting organizations now integrate digital platforms into their operations by streaming programs online, engaging audiences through social media, and developing mobile applications.

Research Question Two: *What challenges do new media technologies pose to traditional radio stations such as Alheri Radio, Zaria and Queen FM, Zaria?*

The findings from Tables 3 and 4 indicate that despite the benefits of new media technologies, they also pose significant challenges to traditional radio broadcasting. Table 3 reveals that 17 respondents (41.5%) identified loss of audience to online platforms as the major challenge facing traditional radio stations. This suggests that listeners are increasingly shifting from conventional radio to digital media platforms where content is more accessible, interactive, and available on demand. According to Castells (2013), the development of the network society has enabled audiences to become more autonomous in choosing and interacting with media content, thereby reducing their dependence on traditional broadcasting systems.

In addition, Table 4 shows that 28 respondents (68.3%) agreed that new media technologies reduce the relevance of traditional radio broadcasting. This finding supports the Media Displacement Theory, which argues that the emergence of new media platforms can reduce the dominance and audience share of older media forms. The increasing preference for online content has intensified competition for audience attention, making it more difficult for traditional radio stations to maintain their listenership. According to Castells (2013), the development of the network society has enabled audiences to become more autonomous in choosing and interacting with media content, thereby reducing their dependence on traditional broadcasting systems.

This study also identified other challenges such as high cost of technology adoption (22.0%), lack of technical skills (19.5%), and poor

internet connectivity (12.2%). These findings indicate that while broadcasters recognize the importance of digital technologies, financial, technical, and infrastructural limitations continue to hinder effective adaptation. Consequently, the study established that audience migration, technological costs, inadequate skills, and infrastructural deficiencies constitute major challenges confronting traditional radio stations in the digital era. On this note, Ezeaku (2024) and Olajide, (2022) confirmed that the integration of new media technologies into broadcasting operations presents several challenges for radio stations. These challenges include the need for modern broadcasting equipment, skilled technical personnel, stable internet connectivity, and adequate regulatory frameworks to manage digital broadcasting activities. In addition, broadcasters must constantly update their technological infrastructure to keep pace with rapidly evolving communication technologies

Research Question Three: *What strategies have Alheri Radio Zaria and Queen FM, Zaria adopted in response to the challenges of new media technologies on broadcasting in Nigeria?*

The findings from Tables 6 and 7 reveal that the stations have adopted several strategies to remain competitive in the changing media landscape. Table 6 shows that 14 respondents (34.1%) identified social media engagement as the major strategy adopted by their stations, followed by online streaming services (24.4%) and staff training in ICT (22.0%). This suggests that the stations recognize the importance of maintaining an active digital presence and developing staff capacity to meet the demands of modern broadcasting. Sundar (2020) corroborated that new media also serve as a platform for audience interaction and participation. Through social media and online forums, audiences can share their opinions, contribute content, and engage directly with broadcasters. This has transformed the communication process from a one-way model to a more participatory and interactive system.

Furthermore, Table 7 reveals that 15 respondents (36.6%) stated that the stations have integrated new media tools mainly through social media updates and content posting, while 10 respondents (24.4%) indicated live streaming services. This finding demonstrates that social media platforms have become essential channels for content dissemination, audience interaction, and brand visibility. The adoption of audience feedback systems, digital production tools, and online news distribution platforms further reflects the commitment of these stations to digital innovation. Sundar (2020) still supported that new media serve as a platform for audience interaction and participation. Through social media and online forums, audiences can share their opinions, contribute content, and engage directly with broadcasters. This has transformed the communication process from a one-way model to a more participatory and interactive system.

These findings are consistent with the Diffusion of Innovation Theory, which explains how organizations adopt new technologies to improve performance and maintain competitiveness. Therefore, this study established that Alheri Radio, Zaria and Queen FM, Zaria have responded to new media challenges through social media engagement, live streaming, staff development, content innovation, and digital integration, thereby enhancing audience reach, interaction, and overall broadcasting effectiveness.

Conclusion

This study reveals that new media technologies have significantly influenced broadcasting activities in Nigeria by improving the speed of information dissemination, audience engagement, content delivery, and overall efficiency of broadcasting stations in Nigeria. However, the study discovers that new media technologies pose serious challenges to traditional radio broadcasting, such as loss of audience to online platforms, high cost of adopting digital technologies and lack of technical skills. The study further shows that many listeners now prefer online streaming platforms, which has affected the audience based of traditional radio stations. The study also

reveals that the stations use and integrate new media tools in their broadcasting operations, indicating widespread adoption by improving broadcasting performance in terms of speed of communication, content delivery, audience engagement, and overall operational efficiency, reflecting a clear shift from traditional broadcasting practices to more technology-driven media operations.

Despite these constraints, the study reveals that the stations have developed adaptive strategies such as social media engagement, live streaming, ICT training, content innovation, and the use of digital production tools. These efforts demonstrate a continuous attempt to remain relevant and competitive in an increasingly digital media environment. Overall, the study reveals a balanced but critical picture: new media technologies have greatly improved broadcasting effectiveness, but they have also disrupted traditional radio structures by shifting audience attention online. In response, the stations are not passive; instead, they are actively restructuring their operations through digital integration and strategic adaptation. This indicates an ongoing transformation of the broadcasting industry in Nigeria, where survival increasingly depends on technological adaptability and innovation.

Recommendations

Based on the findings of this research, the following recommendations were offered:

- i. Broadcasting stations should regularly organize intensive ICT and digital media training for staff to improve their technical skills and ensure effective use of new media technologies in broadcasting operations. Furthermore, considering the high cost technology adoption, the stations should explore alternative funding sources such as partnerships, advertising expansion, and digital monetization strategies to support continues technological development.
- ii. Management of radio stations should allocate more resources toward acquiring up-to-date digital equipment and software to enhance

content production, live streaming, and online broadcasting services. Efforts should also be made by both station management and relevant stakeholders to ensure stable and high-speed internet services; as poor connectivity limits effective use of new media tools.

- iii. Since audience migration to online platforms is a major challenge, stations should further expand their social media presence and interactive platforms to retain and grow their audience base. The stations should also focus on producing creative, relevant and audience-centred content that can compete effectively with online media platforms and attract both traditional and digital audiences.

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