



Research Article

**Influence of Digital Broadcasting on Traditional Radio and Television in Nigeria.
A Study of ESBS and NTA, Enugu.**

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About Article

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ABSTRACT

This study examined the influence of digital broadcasting on traditional radio and television in Nigeria, using Enugu State Broadcasting Service (ESBS) and Nigerian Television Authority (NTA), Enugu as a case study. The study was motivated by the rapid transition from analogue to digital broadcasting and the urgent need to understand how this technological transformation affects broadcast operations, content production, audience behaviour, and institutional sustainability within Nigeria's evolving media environment. The study adopted a quantitative research method and a cross-sectional survey design. The population comprised broadcast professionals in ESBS and NTA, Enugu, with 320 staff members according to ESBS and NTA Enugu database, comprising journalists, programme producers, editors, presenters, and technical staff. Using Taro Yamane formula, a sample size of 178 respondents were selected through purposive sampling technique. Data were collected using a structured questionnaire and analysed using descriptive statistics involving frequencies and percentages. Findings revealed that digital broadcasting has significantly improved operational efficiency within the stations. A good number of respondents agreed that digital tools have enhanced production workflow efficiency, while a large population of respondents confirmed improved signal transmission quality and greater percentage of respondents acknowledged better content storage and archiving systems. In terms of content production, a greater number of respondents reported improved programme quality, the largest number of respondents indicated increased content interactivity, and a substantial number of respondents confirmed faster news delivery. Regarding audience behaviour, a greater percentage of the respondents agreed that digital broadcasting has expanded audience reach, while a higher number of respondents reported that audiences now access radio and television content through multiple digital platforms. However, most of the respondents observed declining audience loyalty to traditional broadcast platforms, reflecting the competitive pressures created by digital media alternatives. At the institutional level, large numbers of respondents agreed that digital broadcasting is essential for long-term survival, while many others acknowledged disruption of traditional revenue models and greater numbers identified increased demand for new digital competencies among broadcast professionals. The study concludes that digital broadcasting has fundamentally reshaped traditional broadcasting in Nigeria by improving operational efficiency, transforming content production, expanding audience reach, and creating new institutional challenges. The study recommended strategic digital integration, continuous professional training, revenue diversification, and supportive regulatory policies to ensure the sustainability of traditional broadcasting institutions in the digital era.



1.0 INTRODUCTION

Broadcasting has historically played a central role in information dissemination, public education, and social development in Nigeria. For decades, radio and television operated primarily through analogue transmission systems characterised by scheduled programming, geographically limited signal coverage, and one-way communication between broadcasters and audiences (Baran & Davis, 2015). Within this traditional framework, radio and television served as dominant sources of news, entertainment, and public enlightenment, shaping public opinion and contributing significantly to national development across diverse communities.

The historical development of broadcasting in Nigeria dates back to 1932, when the British colonial administration established the first radio broadcasting service known as the Radio Distribution Service (RDS). This was later restructured and expanded into the Nigerian Broadcasting Service (NBS) in 1951, eventually becoming the Federal Radio Corporation of Nigeria (FRCN) after independence. Television broadcasting in Nigeria commenced in 1959 with the establishment of the Western Nigeria Television Service (WNTV) in Ibadan, making Nigeria the first country in Africa to introduce television broadcasting (Obono & Madu, 2010). From these historical foundations, broadcasting grew to become a powerful institution for mass communication, public mobilization, and national identity formation.

For many decades, the analogue broadcasting model thrived as the primary medium of mass communication in Nigeria. Radio and television stations operated within structured regulatory frameworks managed by the

National Broadcasting Commission (NBC) and institutional bodies such as the Nigerian Television Authority (NTA), the Federal Radio Corporation of Nigeria (FRCN), and various state-owned broadcast stations. These institutions were responsible for producing and distributing content that served public interest goals, including education, information, entertainment, and civic engagement. The analogue broadcasting system, despite its limitations in terms of signal coverage and production capacity, provided a stable institutional framework within which broadcast professionals operated (Straubhaar et al., 2015).

However, the rapid advancement of digital communication technologies has fundamentally transformed the global media landscape. Digital broadcasting involves the encoding, compression, storage, and transmission of audio-visual content using digital infrastructures that enable multi-channel transmission, improved signal quality, and multi-platform distribution (Flew, 2014; Dominick, 2013). Unlike analogue broadcasting, digital broadcasting allows content to circulate simultaneously across terrestrial transmission, satellite networks, mobile devices, and internet-based platforms. This transformation has blurred the boundary between traditional broadcasting and online media, producing a hybrid media environment where audiences can access content anytime and anywhere (Castells, 2010).

The shift from analogue to digital broadcasting represents more than a mere technological upgrade; it constitutes a structural transformation of broadcasting practice. Digital technologies have introduced computer-based production systems, automated scheduling tools, digital

archiving, live streaming, and audience analytics into broadcast workflows. These innovations have altered newsroom routines, production processes, and content distribution strategies, compelling traditional broadcasters to operate within a competitive and rapidly evolving digital media ecosystem (Straubhaar et al., 2015). The adoption of digital broadcasting therefore requires broadcast institutions to rethink not only their technical infrastructure but also their editorial philosophies, professional standards, and organizational structures.

Globally, the transition to digital broadcasting has been driven by both technological advancement and regulatory policy. Many countries have implemented digital switchover programmes aimed at phasing out analogue transmission and replacing it with digital terrestrial television (DTT) and digital radio platforms. In Nigeria, the National Broadcasting Commission (NBC) initiated the digital switchover process in alignment with the International Telecommunication Union (ITU) framework, setting a national transition timeline to guide broadcast institutions towards full digital adoption (National Broadcasting Commission, 2016). This policy direction placed significant institutional pressure on public and private broadcast organizations to invest in digital infrastructure, retrain staff, and redesign content delivery systems.

In Nigeria, the impact of digital broadcasting is further intensified by changing audience behaviour and growing internet penetration. The increasing availability of smartphones, social media platforms, and broadband internet connectivity has fundamentally altered how Nigerians consume media content. Audiences increasingly expect

immediate access to information, interactive engagement, and personalized content delivery through mobile and online platforms (Napoli, 2011). As a result, traditional radio and television stations face increasing pressure to integrate digital broadcasting technologies in order to maintain relevance, expand audience engagement, and compete effectively with emerging digital media outlets.

The economic dimensions of digital broadcasting are also significant. Traditional broadcasters in Nigeria have historically relied on advertising revenue generated through scheduled analogue broadcasts. The shift to digital and online media has fragmented this advertising market, as brands increasingly allocate budgets to digital platforms where audience data and engagement metrics are more accessible and measurable. This disruption of the traditional advertising revenue model has placed additional financial strain on broadcast institutions, particularly public broadcasters that already operate under constrained budgets (Ufuophu-Biri & Ibagere, 2014). The challenge of sustaining institutional operations while investing in digital transformation has therefore become a pressing concern for broadcast management in Nigeria.

For public broadcast institutions, the transition to digital broadcasting presents both opportunities and challenges. While digital technologies enhance operational efficiency and expand audience reach, they also disrupt established revenue models and create new professional skill demands (Ufuophu-Biri & Ibagere, 2014). Broadcast organisations must therefore balance technological innovation with institutional sustainability and the maintenance of

professional broadcasting standards. The human resource dimension of digital transition is particularly important, as broadcast professionals must continuously update their technical competencies to remain effective within a digitally driven production environment.

These developments are particularly evident within Enugu State Broadcasting Service (ESBS) and Nigerian Television Authority (NTA), Enugu. As traditional broadcast institutions operating within Nigeria's evolving digital environment, these stations occupy an important position in the media landscape of the South-East geopolitical zone. ESBS serves as the state-owned broadcast institution for Enugu State, providing radio and television services to communities across the state, while NTA Enugu operates as a national public broadcaster with a regional mandate. Both institutions have experienced the transformative pressures of digital broadcasting, including the need to upgrade technical infrastructure, retrain staff, adopt digital content production tools, and engage audiences across new media platforms.

Despite the growing importance of digital broadcasting in Nigeria, limited empirical research has examined how digital broadcasting specifically influences traditional radio and television institutions at the station level. Much of the existing literature focuses on broader national policy frameworks, global trends in digital media, or the experiences of commercial media outlets, leaving a gap in knowledge about the specific operational, content, audience, and institutional effects of digital broadcasting on state and national public broadcast stations. This study therefore examines the influence

of digital broadcasting on ESBS and NTA, Enugu, with specific focus on operational processes, content production, audience behaviour, and institutional sustainability. By generating empirical evidence from broadcast professionals working within these institutions, the study contributes to a deeper understanding of digital broadcasting's transformative role in Nigeria's traditional broadcasting sector.

1.2 Statement of the Problem

The transition from analogue to digital broadcasting has transformed media production, distribution, and consumption worldwide. In Nigeria, broadcast institutions are increasingly expected to adopt digital technologies in order to improve efficiency, expand audience reach, and remain competitive in an evolving media environment dominated by internet-based platforms and digital content providers. The National Broadcasting Commission (NBC) has actively promoted digital switchover as a national policy priority, placing institutional and regulatory pressure on traditional broadcast organizations to embrace digital transformation (National Broadcasting Commission, 2016).

However, despite the enthusiasm surrounding digital broadcasting, the transition process in Nigeria has not been without significant challenges. Many traditional broadcast institutions, particularly state-owned radio and television stations, continue to grapple with inadequate infrastructure, funding constraints, and limited technical capacity needed to fully implement digital broadcasting systems. The reality within many Nigerian broadcast stations is one of partial digital adoption, where digital tools are introduced without comprehensive

institutional transformation, resulting in a fragmented and inconsistent broadcasting environment (Nwabueze, 2014). This situation raises important questions about whether digital broadcasting is genuinely improving the operational capabilities and sustainability of traditional broadcast institutions or whether it is merely adding new layers of complexity and cost to already resource-constrained organizations.

Furthermore, the influence of digital broadcasting on the professional practices of broadcast staff remains insufficiently understood. The introduction of digital production tools, automated systems, and multi-platform content delivery has significantly altered newsroom routines and the daily responsibilities of broadcast professionals. Journalists, producers, editors, and technical staff are now expected to manage content across multiple platforms simultaneously, producing faster output while maintaining editorial quality. This increased workload and the growing demand for new digital competencies have created professional pressures that have not been adequately examined in the context of Nigerian public broadcast institutions (Ufuophu-Biri & Ibagere, 2014). Without a clear understanding of how digital broadcasting affects professional practice at the station level, it becomes difficult to design effective training programmes and institutional support systems.

The question of audience behaviour represents another critical dimension of the problem. While digital broadcasting has expanded the technical reach of broadcast content, it has simultaneously created an environment of intense media competition in which traditional radio and television must

compete with social media platforms, video streaming services, podcasting, and online news outlets for audience attention. The fragmentation of media audiences in the digital era means that traditional broadcasters can no longer rely on the captive audiences that characterised the analogue broadcasting era. Research suggests that audience loyalty to traditional broadcast platforms is declining as audiences gain access to greater media choice (Asemah, Nwammuo & Nkwam-Uwaoma, 2017). However, the specific extent and nature of this audience behaviour change within the context of public broadcast stations in Enugu State has not been empirically established.

The institutional sustainability of traditional broadcast organizations in the face of digital transformation also remains a significant concern. Traditional broadcasters in Nigeria have historically depended on advertising revenue and government subventions as their primary sources of funding. Digital broadcasting has disrupted this revenue model by fragmenting the advertising market and reducing the bargaining power of traditional broadcast media. At the same time, the cost of digital infrastructure investment, staff retraining, and platform development places additional financial demands on broadcast institutions whose budgets are already constrained. The result is a widening gap between the digital capabilities that broadcast institutions need and the financial resources available to achieve them (Straubhaar et al., 2015).

Although digital broadcasting is widely discussed in policy and academic discourse in Nigeria, there is limited empirical evidence on how it influences traditional radio and television institutions at the station level.

Most existing studies focus on national policy frameworks, digital media platforms, or general trends in media consumption rather than the specific day-to-day institutional realities experienced by broadcast professionals within traditional public broadcast stations. There is therefore a significant knowledge gap regarding the operational, content, audience, and institutional dimensions of digital broadcasting's influence on organisations such as ESBS and NTA, Enugu.

This study therefore seeks to fill this knowledge gap by empirically examining how ofdigital broadcasting influences the operational processes, content production practices, audience behaviour patterns, and institutional sustainability of ESBS and NTA, Enugu

2.0 RESEARCH OBJECTIVES

The primary objective of this study is to investigate how digital broadcasting influences the operations and sustainability of traditional broadcasting in ESBS and NTA, Enugu. The specific objectives are to:

1. determine how digital broadcasting affects production and transmission in ESBS and NTA, Enugu.
2. examine how digital broadcasting influences programme and news production in ESBS and NTA, Enugu.
3. evaluate how digital broadcasting affects audience access and loyalty to ESBS and NTA, Enugu.
4. identify how digital broadcasting affects professional skills, revenue, and institutional survival in ESBS and NTA, Enugu.

3.0 LITERATURE REVIEW

Conceptual Review

3.1 Concept of Digital Broadcasting

Digital broadcasting refers to the transmission of audio and visual content using digital signal processing technologies rather than analogue systems. It involves the encoding, compression, storage, and distribution of broadcast signals through digital infrastructures that enable multi-channel transmission, improved signal clarity, and integration with internet-based platforms (Flew, 2014; Dominick, 2013). Unlike analogue broadcasting, digital broadcasting allows content to be transmitted simultaneously across multiple platforms, including terrestrial transmission, satellite networks, mobile devices, and online streaming services.

One of the defining features of digital broadcasting is media convergence, which describes the integration of broadcasting with telecommunications and internet technologies. Convergence enables traditional radio and television content to circulate beyond geographical boundaries and fixed broadcast schedules, creating a hybrid media environment where audiences access content anytime and anywhere (Castells, 2010). Digital broadcasting therefore represents a transformation of broadcasting logic from linear transmission to multi-platform distribution.

Key characteristics of digital broadcasting include improved signal quality, increased channel capacity, digital archiving, real-time content distribution, and interactive audience engagement. These features collectively enhance production efficiency and expand audience reach, making digital broadcasting

a central component of contemporary media systems (Napoli, 2011).

Concept of Traditional Radio and Television Broadcasting

Traditional broadcasting refers to analogue radio and television systems characterised by one-way communication, scheduled programming, and geographically limited signal coverage. Historically, radio and television operated within a centralised communication model in which broadcasters controlled content production, scheduling, and distribution (Baran & Davis, 2015).

Traditional broadcasting relied heavily on analogue transmission technologies and structured programming schedules that required audiences to consume content at specific times. This model fostered strong audience loyalty and predictable advertising revenue structures. However, the rise of digital media has challenged this model by introducing on-demand consumption and interactive media engagement (Straubhaar et al., 2015).

The transition to digital broadcasting has therefore created a hybrid broadcasting environment in which analogue and digital practices coexist, requiring traditional broadcasters to adapt to new technological and audience expectations.

Digital Broadcasting and Broadcast Operations

Digital broadcasting has significantly transformed broadcast production and transmission processes. Modern broadcasting workflows now rely on computer-based editing software, automated scheduling systems, and digital archiving tools. These technologies enable faster

production cycles, improved storage capacity, and enhanced signal transmission quality (Dominick, 2013).

Digital tools also support remote production, live streaming, and real-time content distribution. As a result, broadcast institutions must adopt new technical competencies and production strategies to maintain efficiency and competitiveness within the digital media environment (Flew, 2014).

Digital Broadcasting and Content Production

The shift to digital broadcasting has reshaped the logic of content production. Traditional programming emphasised long-form content designed for scheduled broadcast slots. In contrast, digital environments prioritise shorter, more interactive, and shareable content formats designed for circulation across multiple platforms (Napoli, 2011). Digital broadcasting also accelerates the speed of news production and delivery. Real-time reporting, live streaming, and social media integration enable broadcasters to deliver news more quickly and engage audiences more actively. However, the pressure for speed may also challenge editorial depth and professional standards in resource-constrained media organizations, (Ufuophu-Biri & Ibagere, 2014).

Digital Broadcasting and Audience Behaviour

Digital broadcasting has redefined audience roles within the media environment. Audiences are no longer passive receivers of broadcast content; they actively select, share, and interact with content across digital platforms. This shift has expanded audience

reach beyond geographical limitations while simultaneously fragmenting audience attention (Castells, 2010). Multi-platform access allows audiences to consume radio and television content through mobile devices, streaming services, and social media. While this increases accessibility, it also weakens traditional audience loyalty, as audiences now have access to diverse media alternatives (Napoli, 2011).

Digital Broadcasting and Institutional Sustainability

Digital broadcasting presents both opportunities and challenges for traditional broadcast institutions. On one hand, digital technologies improve operational efficiency and expand audience reach. On the other hand, they disrupt traditional advertising revenue models and create demand for new professional skills (Straubhaar et al., 2015).

Broadcast organizations must therefore invest in digital skills development, revenue diversification, and strategic planning to ensure long term sustainability within the evolving media environment (Ufuophu-Biri & Ibagere, 2014).

3.1.1 EMPIRICAL REVIEW

Nwabueze (2014) conducted a study on the topic, Digital Broadcasting, Transition and Broadcasting Capacity in Nigeria. The study was set to address the problem of how Nigeria's broadcast sector can effectively transition from analogue to digital broadcasting despite institutional and infrastructural challenges. Using a scholarly analytical approach grounded in Nigerian broadcasting development, the study examined the implications of digital transition for broadcast institutions. The study found that digital broadcasting improves signal

clarity, enhances transmission efficiency, and expand channel capacity, thereby improving technical performance in broadcast stations. However, the findings also showed that inadequate infrastructure, insufficient funding, and limited technical expertise significantly hinder effective digital transition. The study concluded that digital broadcasting can strengthen Nigerian broadcasting only when institutional readiness is improved. It recommended sustained investment in broadcast infrastructure, continuous staff training, and organizational restructuring to support effective digital broadcasting adoptions.

Asemah, Nwammuo, and Nkwam-Uwaoma (2017) conducted a study on the topic, Digital Convergence and Audience Loyalty in Nigerian Broadcasting. The study set out to investigate the problem of declining audience loyalty and increasing competition facing traditional broadcast media in the digital era. It also examined how Nigerian broadcast institutions integrate digital platforms to maintain relevance. Findings revealed that radio and television stations increasingly adopt digital platforms and social media to expand audience reach and improve content distribution. However, the study also found that this digital integration leads to reduced audience loyalty to traditional broadcast platforms and increased competition from digital media outlets. The study concluded that digital convergence has fundamentally reshaped audience behaviour and media competition. It recommended that broadcast institutions adopt multi-platform content strategies, strengthen audience engagement, and develop digital competencies to remain competitive in the evolving media environment.

Ufuophu-Biri and Ibagere (2014) conducted another study on the topic, Digital Skills and Professional Adaptation in Nigerian Newsrooms. The research examined the problem of how Nigerian journalists adapt to the growing influence of digital technologies in newsroom operations. It analysed the impact of new media technologies on journalism practice in Nigeria. Findings showed that digital technologies increase production speed, expand dissemination channels, and improve newsroom efficiency. However, the study also revealed that journalists face increased workload, growing demand for digital skills, and challenges in maintaining professional standards in a fast-paced digital environment. The study concluded that technological change is redefining newsroom practices and professional expectations. It recommended continuous professional training, institutional support for digital work routines, and policies that ensure digital efficiency does not undermine journalistic quality.

Ogundimu and Adesina (2019) conducted a study titled, Digital Media Adoption and Revenue Sustainability in Nigerian Broadcasting Institutions. The study examined the financial implications of digital media adoption for traditional broadcast stations in Nigeria, specifically investigating how digital transformation affects revenue generation and institutional financial planning. Using a mixed-method approach involving interviews with broadcast managers and a review of institutional financial records, the study found that digital adoption significantly disrupts traditional advertising revenue models, as advertisers increasingly shift budgets towards online and social media platforms. The findings revealed that broadcast stations that failed to develop

digital revenue strategies experienced significant financial strain. The study also found that institutions which diversified into digital advertising, sponsored streaming content, and online audience subscriptions were better positioned to sustain their operations. The study concluded that revenue diversification through digital channels is essential for the financial sustainability of Nigerian broadcast institutions. It recommended that broadcast management develop strategic digital monetization frameworks and engage regulatory bodies to create enabling policies for digital revenue generation.

All together, the reviewed works were related to this study in the sense that both works focused on transforming from analog to digital broadcasting. Hence this study was on the influence of digital broadcasting on traditional radio and television with particular reference on ESBS and NTA Enugu.

4.0 THEORETICAL FRAMEWORK

Technological Determinism Theory

This study was anchored on Technological Determinism Theory, as proposed by Marshall McLuhan (1964). The theory argues that technology shapes societal structures and behaviours independently of human intent. It expresses that communication technologies are powerful forces that shape social structures, institutional practices, and patterns of human interaction. According to this perspective, technological change is not merely a tool used by society; rather, it actively restructures how institutions operate and how individuals communicate and consume information (Baran & Davis, 2015). Within the media environment, technological determinism suggests that the introduction of new communication technologies leads to fundamental changes in media production,

distribution, and consumption. Each major technological shift in media history from print to radio, from radio to television, and from analogue to digital broadcasting has reorganised the structure and functioning of media institutions (McLuhan, 1964).

The transition from analogue broadcasting to digital broadcasting represents one of the most significant technological transformations in contemporary media systems.

Technological determinism therefore provides a useful lens for understanding why traditional broadcast institutions are compelled to adopt digital broadcasting technologies. In a digital media environment, failure to adopt new technologies may result in institutional marginalisation, reduced audience relevance, and decreased competitiveness. Consequently, traditional broadcasters are driven to integrate digital technologies in order to remain operationally viable and socially relevant.

Relevance of the Theory to the Study

Technological Determinism Theory is particularly relevant to this study because it explains how digital broadcasting functions as a transformative force influencing traditional radio and television institutions. It also explains changes in broadcast operations. Digital technologies restructure production workflows through digital editing systems, automated archiving, and real-time transmission tools. Finally, this theory explains changes in content production. Digital broadcasting encourages faster news delivery, interactive programme formats, and multi-platform content distribution. These changes reflect the influence of technology on

the nature and speed of broadcast content. By applying Technological Determinism Theory, this study examines how digital broadcasting reshapes the operational processes, content production, audience engagement, and institutional sustainability of ESBS and NTA, Enugu.

5.0 METHODOLOGY

Research Design

This study adopted a quantitative research design, which was considered appropriate for examining the perceptions and experiences of broadcast professionals regarding the influence of digital broadcasting on traditional radio and television. Quantitative research involves the collection and analysis of numerical data in order to identify patterns and relationships among variables (Bhandari, 2020).

Specifically, the study employed a cross-sectional survey research method, which allows data to be collected from respondents at a single point in time. Lauren (2022) notes that a cross-sectional study is a type of research method in which the researcher collects data from respondents at a single point in time. This design is suitable for assessing the existing conditions and drawing inferences about the influence of digital broadcasting on broadcast operations, content production, audience behaviour, and institutional sustainability within ESBS and NTA, Enugu.

Population of the Study

The population of this study comprises broadcast professionals working in Enugu State Broadcasting Service (ESBS) and Nigerian Television Authority (NTA), Enugu.

These include journalists, programme producers, editors, presenters, and technical staff directly involved in production, editorial, and transmission activities.

Based on staff records and professional listings obtained from both ESBS and NTA Enugu data base, the population of broadcast-relevant staff is **320** (ESBS = 170; NTA Enugu = 150). This population is considered appropriate because the study focuses on the institutional and professional effects of digital broadcasting within traditional broadcast organizations.

Sampling Technique

The study employed a purposive sampling technique. Purposive sampling allows the researcher to deliberately select respondents who possess relevant knowledge and experience related to the research topic . Nwodu, (2017). describes it as a judgemental sampling technique. While Owuamalam, (2023, p.119) notes that purposive sampling technique is the technique where the judgement of the researcher is the deciding element on who will be selected. Only staff directly involved in broadcast production, newsroom operations, programme development, and transmission were selected. This approach ensured that responses were obtained from individuals who are directly affected by digital broadcasting technologies within their professional roles.

Sample Size

The sample size of this study is 178. Pritha, (2020) writes that a sample size is a part of the population chosen for a survey or experiment through appropriate technique. Taro Yamane formular, (1967) was used to determine the sample size as explained below:

Where:

$$e^2 = 0.05^2 = 0.0025$$

$$N(e^2) = 320 \times 0.0025 = 0.8$$

$$1 + N(e^2) = 1 + 0.8 = 1.8$$

$$n = \frac{320}{1.8} = 177.78 \approx 178$$

$$n = \frac{N}{1 + N(e^2)}$$

N = sample size

N = population size

e = level of precision (0.05)²

Therefore, the sample size for this study is **178 respondents**.

The sample was proportionately distributed between the two broadcast stations as follows:

- ESBS: 95 respondents
- NTA, Enugu: 83 respondents

This proportionate allocation ensured balanced representation of both institutions.

INSTRUMENT FOR DATA COLLECTION.
For the purpose of this study, a self administered questionnaire was used to collect data from the sample size of the study. Copies of questionnaire were administered to the respondents through the interpersonal administration of questionnaire method.

5.1 DATA PRESENTATION AND ANALYSIS

This section presents and analyses data obtained from the field survey conducted among broadcast professionals in ESBS and NTA, Enugu. Data are presented using

frequencies and percentages in SPSS-style tables. Each table corresponds directly to a research question and is followed by interpretation.

The total number of valid questionnaires retrieved and analysed is 178, representing a 100% usable response rate.

Demographic Characteristics of Respondents

Table 1: Distribution of Respondents by Organisation (n = 178)

Organisation	Frequency	Percentage
ESBS	95	53.4%
NTA, Enugu	83	46.6%
Total	178	100%

Source: field survey 2026

Interpretation:

The table shows proportionate representation of respondents from the two broadcast stations. ESBS accounts for 53.4% of

respondents while NTA, Enugu represents 46.6%, ensuring balanced institutional participation.

Table 2: Distribution by Professional Role (n = 178)

Professional Role	Frequency	Percentage
Journalists/Reporters	56	31.5%
Programme Producers	42	23.6%
Editors/Presenters	39	21.9%
Technical Staff	41	23.0%
Total	178	100%

Source: field survey 2026

Interpretation:

Respondents were drawn from key professional roles within the broadcast workflow. This distribution strengthens the

validity of responses regarding operational and professional effects of digital broadcasting.

Table 3: Influence of Digital Broadcasting on Operational Processes (n = 178)

Variables	SA	A	N	D	SD	Total
Digital tools improve production workflow efficiency	72 (40.4%)	69 (38.8%)	18 (10.1%)	11 (6.2%)	8 (4.5%)	178
Digital broadcasting enhances signal quality	75 (42.1%)	66 (37.1%)	17 (9.6%)	12 (6.7%)	8 (4.5%)	178
Digital systems improve content storage and archiving	81 (45.5%)	63 (35.4%)	15 (8.4%)	10 (5.6%)	9 (5.1%)	178

Source: field survey 2026

Interpretation:

Over 79% of respondents agree that digital broadcasting improves workflow efficiency and signal quality, while 80.9% confirm improved archiving and storage. This shows

strong evidence of operational transformation. The implication is that there is strong evidence of operational transformation in these broadcast stations.

Table 4: Influence on Content Production (n = 178)

Variables	SA	A	N	D	SD	Total
Digital broadcasting improves programme quality	68 (38.2%)	71 (39.9%)	19 (10.7%)	11 (6.2%)	9 (5.1%)	178
Digital platforms encourage interactive content	74 (41.6%)	66 (37.1%)	16 (9.0%)	12 (6.7%)	10 (5.6%)	178
Digital broadcasting increases speed of news delivery	79 (44.4%)	67 (37.6%)	14 (7.9%)	10 (5.6%)	8 (4.5%)	178

Source: field survey 2026

Interpretation:

The above implies that more than 78% of respondents agreed that digital broadcasting

improves programme quality, interactivity, and news delivery speed.

Table 5: Influence on Audience Behaviour (n = 178)

Variables	SA	A	N	D	SD	Total
Digital broadcasting expands audience reach	76 (42.7%)	65 (36.5%)	17 (9.6%)	12 (6.7%)	8 (4.5%)	178
Audiences access content via multiple platforms	82 (46.1%)	63 (35.4%)	14 (7.9%)	10 (5.6%)	9 (5.1%)	178
Digital broadcasting changes audience loyalty	69 (38.8%)	68 (38.2%)	21 (11.8%)	12 (6.7%)	8 (4.5%)	178

Source: field survey 2026

Interpretation:

About 79% agree that digital broadcasting expands reach, while 81.5% confirm multi-

platform access. However, the implication is that audience loyalty has become less stable.

Table 6: Institutional Implications (n = 178)

Variables	SA	A	N	D	SD	Total
Digital broadcasting requires new professional skills	85 (47.8%)	61 (34.3%)	14 (7.9%)	10 (5.6%)	8 (4.5%)	178
Digital broadcasting disrupts traditional revenue models	71 (39.9%)	69 (38.8%)	18 (10.1%)	12 (6.7%)	8 (4.5%)	178
Digital broadcasting is essential for survival	78 (43.8%)	67 (37.6%)	15 (8.4%)	10 (5.6%)	8 (4.5%)	178

Source: field survey 2026

Interpretation:

Over **81%** agree that digital broadcasting is essential for survival but also disrupts revenue and increases skill demands. The implication of the above table is that though digital broadcasting is essential for the survival broadcast stations, it also disrupts revenue and increase skill demands.

5.1.2 DISCUSSION OF FINDINGS**Digital Broadcasting and Broadcast Operations**

Findings from the study reveal that digital broadcasting has significantly improved production workflows, signal transmission, and content storage in ESBS and NTA, Enugu. A large majority of respondents agreed that digital tools have enhanced workflow efficiency and improved transmission quality. These findings support the argument that technological change restructures institutional routines and professional practices within media organisations (McLuhan, 1964; Baran & Davis, 2015).

The integration of digital editing systems, automated scheduling, and digital archiving reflects the shift from analogue-based operations to computer-driven broadcast production. This confirms that digital broadcasting has become central to the daily operational processes of traditional broadcast institutions (Dominick, 2013; Flew, 2014). The findings also align with Nwabueze (2014), whose study established that digital broadcasting improves signal clarity and transmission efficiency in Nigerian broadcast stations, while also highlighting the institutional readiness challenges that accompany this transformation.

Digital Broadcasting and Content Production

The study also shows that digital broadcasting has positively influenced programme quality, content interactivity, and speed of news delivery. The majority of respondents agreed that digital tools have enabled faster and more responsive content production. These findings align with existing literature which suggests that digital technologies encourage real-time reporting and multi-platform content circulation (Flew, 2014; Napoli, 2011).

However, the findings also suggest increased professional pressure on broadcast staff, as faster production cycles require greater technical competence and continuous output (Ufuophu-Biri & Ibagere, 2014). The demand for interactive and multi-platform content has fundamentally altered how programme producers and journalists approach their craft, requiring a blending of traditional broadcasting skills with digital media competencies.

Digital Broadcasting and Audience Behaviour

The findings indicate that digital broadcasting has expanded audience reach and enabled audiences to access broadcast content across multiple platforms. This supports the view that digital technologies reduce geographical barriers and increase accessibility to broadcast content (Castells, 2010; Napoli, 2011).

However, the study also found that audience loyalty to traditional radio and television has become less stable. The availability of multiple digital media platforms increases competition for audience attention and fragments audience behaviour (Straubhaar et

al., 2015). This confirms the findings of Asemah, Nwammuo and Nkwam-Uwaoma (2017), whose study demonstrated that digital convergence leads to reduced audience loyalty to traditional broadcast platforms even as it increases overall content accessibility.

Institutional Implications of Digital Broadcasting

The findings further reveal that digital broadcasting requires new professional skills, disrupts traditional revenue models, and is considered essential for the long-term survival of traditional broadcasters. These results reflect broader global trends where digital transformation simultaneously creates opportunities and institutional pressures for legacy media organisations (Flew, 2014; Straubhaar et al., 2015).

The disruption of traditional revenue models identified in this study is consistent with the findings of Ogundimu and Adesina (2019), who established that digital adoption significantly undermines conventional advertising revenues while simultaneously creating opportunities for digital monetisation. Technological Determinism Theory explains these outcomes by demonstrating how technological change compels institutions to adapt in order to remain relevant (McLuhan, 1964; Baran & Davis, 2015). Digital broadcasting is therefore no longer optional but a necessary condition for institutional sustainability.

Overall, the findings demonstrate that digital broadcasting has reshaped operational processes, content production, audience behaviour, and institutional sustainability within ESBS and NTA, Enugu. While digital broadcasting offers significant opportunities

for improved efficiency and expanded reach, it also introduces new challenges relating to skills, revenue, and audience loyalty (Napoli, 2011; Flew, 2014). These findings collectively affirm the relevance of Technological Determinism Theory as a framework for understanding the compulsory nature of digital adoption in traditional broadcast institutions.

6.0 CONCLUSION

This study examined the influence of digital broadcasting on traditional radio and television in Nigeria, using Enugu State Broadcasting Service (ESBS) and Nigerian Television Authority (NTA), Enugu as a case study. The findings demonstrate that digital broadcasting has become a central factor shaping the contemporary broadcasting environment and the operations of traditional broadcast institutions.

The study established that digital broadcasting has significantly improved operational processes within ESBS and NTA, Enugu. Production workflows, signal transmission, and content storage have become more efficient through the adoption of digital technologies. These developments confirm the broader argument that technological change restructures media production and institutional practices in agreeing with the views of (Dominick, 2013 and Flew, 2014).

The study also found that digital broadcasting has transformed content production. Programme quality, interactivity, and speed of news delivery have improved as broadcast institutions adapt to the demands of a digital media environment in the opinion of (Napoli, 2011). These changes reflect the growing

importance of multi-platform content production and real-time information delivery in contemporary broadcasting systems as suggested to by (Castells, 2010).

In terms of audience behaviour, the study revealed that digital broadcasting has expanded audience reach and increased access to broadcast content across multiple platforms. However, increased accessibility has been accompanied by declining audience loyalty to traditional broadcast platforms due to rising competition from digital media alternatives (Straubhaar et al., 2015).

Furthermore, the study found that digital broadcasting has important implications for institutional sustainability. The adoption of digital technologies has created demand for new professional skills and disrupted traditional revenue models. At the same time, digital broadcasting has become essential for the long-term survival of traditional radio and television institutions as noted by (Ufuophu-Biri & Ibagere, 2014).

Overall, the study concludes that digital broadcasting has fundamentally reshaped traditional broadcasting in Nigeria. While it provides opportunities for improved efficiency, wider reach, and enhanced content delivery, it also introduces significant institutional and professional challenges. The future of traditional broadcasting therefore depends on the strategic integration of digital technologies, continuous investment in professional development, and continuous adaptation to the evolving media environment in consonance with the opinion of (Flew, 2014).

7.0 RECOMMENDATIONS

Based on the findings of this study, the following recommendations are proposed:

1. **Strategic Digital Integration:** Broadcast institutions such as ESBS and NTA, Enugu should adopt structured digital transformation strategies rather than fragmented adoption of digital tools. A coordinated approach will ensure that technological adoption aligns with organisational goals and public service responsibilities.
2. **Continuous Professional Training:** Broadcast organisations should implement regular training programmes to equip staff with the digital competencies required for contemporary broadcasting. Emphasis should be placed on digital production tools, multi-platform content management, and audience engagement techniques.
3. **Revenue Diversification:** Traditional broadcasters should explore alternative revenue models beyond conventional advertising. These may include digital advertising partnerships, sponsored online content, and collaborative media production initiatives to reduce financial vulnerability in an increasingly competitive digital media market.
4. **Multi-Platform Audience Engagement:** Broadcast stations should strengthen their online presence by actively distributing content across social media and streaming platforms. Developing interactive and audience-centred programming will help sustain audience loyalty in the digital era.
5. **Government and Regulatory Support:** Media regulators and policymakers

should provide supportive frameworks that encourage digital broadcasting adoption. This includes investment in broadcast infrastructure, stable power supply, and policies that support capacity development in public broadcast institutions.

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