

**ASSESSMENT OF BROADCAST JOURNALISTS' KNOWLEDGE AND UTILIZATION OF DIGITAL BROADCAST EQUIPMENT: A CASE STUDY OF DELTA BROADCASTING SERVICE, ASABA**

**CORNELIUS AGHADIEGWU, UKWUEZE, Ph.D.**

Professor of Electronic Communication and Broadcasting and New Media  
Department of Mass Communication  
Nnamdi Azikiwe University, Awka, Anambra State, Nigeria  
Phone: +234(0)8063694405),

**VICTOR EMENIKE, BIENI**

Department of Mass Communication  
Nnamdi Azikiwe University, Awka, Anambra State, Nigeria  
Phone: +234(0)8165818835)

**EKENE GODFREY OKAFOR, Ph.D.**

Lecturer I, Department of Mass Communication  
Nnamdi Azikiwe University, Awka, Anambra State, Nigeria  
Phone: +234(0)8068683384),

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**ABSTRACT**

In November 2017, the Delta State government commissioned the digital radio and TV studio of the Delta Broadcasting Service in Asaba. The implication of this is that the analogue equipment in the station will have to gradually give way to the digital ones. Although the government of Delta State has not provided sufficient digital broadcast facilities for the broadcast journalists, it is expected that practicing journalists will become knowledgeable and key into the new development by learning the use of the digital broadcast equipment, regardless of the government provisions. Hence, the study interrogated the level of knowledge and utilization of digital broadcast equipment and also the challenges facing the use of digital broadcast equipment among broadcast journalists in Delta State Broadcasting Service. Four major variables, namely, knowledge, utilization, challenges, and solutions, were placed under scrutiny using the census sampling procedure of a survey to examine 100 respondents spread across two departments in DBS, Asaba. The study found, amongst many other things, that there is a high level of knowledge and utilization among journalists in DBS, Asaba, as regards digital broadcast equipment, while inadequate skilled manpower, funds, training, and equipment were the major challenges facing the use of digital equipment in the station. The study therefore recommended that there is a need to intensify training and retraining of digital broadcast journalists and that the government and well-meaning people of Delta prioritize the funding of digital equipment at the station.

**Keywords:** Broadcast Journalists, Knowledge, Utilization, Digital Broadcast Equipment, Delta Broadcasting Service (DBS)

## 1.0 INTRODUCTION

The invention of the Internet and digital gadgets seem to have revolutionized communication. The advent of digital facilities has not only brought improvement but also quality and speed to the way people communicate across the globe. The application of these facilities can be seen in almost every aspect of human endeavor. The business of journalism in this century has taken cognizance of New Information and Communication Technologies (NICTs) (Nwammuo & Abiodun, 2018), and digital broadcast equipment has also taken centre stage in modern-day broadcasting. As the transformation of the mass media landscape by information and communication technology (ICT) has opened a vista of opportunities and challenges for journalists (Asadu, 2009), the availability and multiplicity of digital broadcast equipment have begun to penetrate the world of broadcasting and are currently being used by several broadcasters across cultures. As ICTs have the potential to transform the broadcast media by improving the quality of broadcast contents, the extent of their application seems inadequate among Nigerian broadcasters and, as such, needs to be looked into. Therefore, in this new and technologically driven world, broadcast journalism has continued to prove interesting and challenging, and modern-day journalists need to succeed in a lot more ways (Nwammuo & Abiodun, 2018). Since these technologies and digital broadcast equipment may still be alien in some areas, this work interrogates the extent to which the broadcasters in Delta State Broadcasting Service try to adopt the use of state-of-the-art equipment in gathering, packaging, and disseminating news and other relevant information to the public. Indeed, broadcast journalism practice in the modern world has experienced a paradigm shift necessitated by changes and innovations in information technologies. One can see that journalism is experiencing a renaissance in communication, and the Internet is a rapidly evolving medium disparate from traditional media and is redefining the conventional process (Nwammuo & Abiodun, 2018).

These demonstrate that a very important area in today's broadcasting world is the technology and equipment for the transmission of media messages. Modern technology has revolutionized the shape and dimensions of broadcasting. Modern technologies are today enhancing and facilitating the communication process, as well as helping in the generation and dissemination of information more efficiently to a highly dispersed audience around the world. The catalyst for the transformation of media newsrooms is modern technology (Otorede & Oyewole, 2013). These technologies have further enhanced media credibility, reliability, and even affordability and accessibility, as newsworthy events can be reported simultaneously as they unfold with little or no interference, and the audience's access to the stories is at a relatively affordable cost. For instance, the Internet has made journalism practice easier via the exchange of messages with professionals and experts in various disciplines, and these have introduced a new market and new form of journalism in which journalists specialize as online journalists, content managers, and editors for some websites and media organizations. These technologies have also refurbished the obsolete face of media newsrooms; the new sophisticated computers have replaced the old, time-consuming, and outdated ones.

Besides, technological advancements in various aspects of human endeavour seem to be moving in geometric progression, considering the development of information and communication technologies (ICTs). The introduction of computers for information gathering, processing, and dissemination forms the basic nucleus for this advancement and provides the

basis for digital information and communication culture (Nwagbara & Asak, 2016). In addition to traditional tasks, the broadcast journalist today is also a “video journalist, as he can shoot, edit, and upload his own story” (p. 244). This is made even easier for him as a result of digital technology. Consequently, new media, such as the Internet, have become part of the journalist’s daily routine.

It is important to note that digital broadcast facilities help journalists achieve various tasks in their work situations as they gather, process, and disseminate information. In addition, the digital facilities help to train the journalist, especially with respect to the application of new media technologies, in various aspects of his profession as he takes advantage of self-training tutorials on the Internet. However, journalists in developing countries like Nigeria need to be equipped with the skills for using digital broadcast equipment and also be provided with these new broadcast facilities. These necessitate the need for this academic inquiry, as one wonders if broadcast journalists are particularly conversant with the use and application of digital broadcast facilities. The job of a broadcast journalist, like that of other journalists, involves seeking out and gathering data (which may be information), processing it, and disseminating it to other people. In performing these functions, upwardly mobile journalists can use the digital facilities to achieve all these.

However, Nwafar (2010) argued that even in the presence of the numerous opportunities and benefits provided by the new digital broadcast facilities for greater efficiency, better quality, fast production, and delivery of more reliable and cost-effective service, most broadcast stations in Nigeria are yet to catch up with the trend. The essence of this study, therefore, is to examine the broadcast journalist’s knowledge and utilization of digital broadcast equipment in their modern-day broadcasting.

## 2.0 STATEMENT OF PROBLEM

The emergence of Information and Communication Technologies (ICTs) has brought unimaginable changes to the broadcast industry globally, resulting in the emergence of digital broadcast equipment. These digital broadcast facilities are important components of today’s broadcasting, but in Nigeria, there could be challenges facing the use of the facilities by broadcast media practitioners. However, the presence of information and communication technology (ICT) and digital gadgets in the journalism profession has presented challenges and opportunities to journalists in Africa, but it seems most African journalists lack the requisite knowledge to operate these facilities in the new media environment (Nwammuo & Abiodun, 2018). Most media organizations are fast adopting modern technologies for news dissemination, news conferences, and the instant distribution of information and coverage of events around the world. In addition to traditional ways of broadcast journalism practice, multi-skilled broadcast journalists should be trained. This study therefore sets out to determine how broadcast journalists in the Delta State Broadcasting Service use digital facilities in performing their duty as broadcast journalists. It is therefore pertinent to assess whether broadcast journalists, especially those at the Delta State Broadcasting Service, have knowledge of this trend and whether they have started applying the digital broadcast equipment in news and information dissemination and distribution, considering the level of technological advancements and the ICT literacy level expected of practitioners and journalists in the current digital age. This is the gap in knowledge this study is designed to fill.

## 2.1 Purpose/ Objective of the Study

The general objective of this study is to ascertain the level of knowledge of digital broadcasting and the level of utilization of digital equipment among Delta Broadcasting Service journalists. From the foregoing, the research pursued the following specific objectives:

1. To find out the proportion of broadcasters in Delta Broadcasting Service who are knowledgeable of digital broadcasting equipment.
2. To ascertain the extent to which broadcasters in Delta Broadcasting Service utilize digital broadcast equipment.
3. To find out the challenges they face in utilizing digital broadcast equipment.

## 2.2 Research Questions

In line with the objectives of the study, the following research questions were formulated:

1. What is the proportion of broadcasters in Delta Broadcasting Service that are knowledgeable of digital broadcasting equipment?
2. To what extent do broadcasters in Delta Broadcasting Service utilize digital broadcast equipment?
3. What are the challenges they face in utilizing digital broadcast equipment?

## 3.0 LITERATURE REVIEW

### 3.1 Digital Broadcast Equipments

The digital broadcast equipment can be conceived as all technologies that are utilized to communicate information and all of the technologies used for recording, transmitting, and sharing information via sound and image. The digital broadcast equipment equally connotes the various kinds of broadcast technologies that promote the transmission of information in a broadcast station. The advancement of technology in broadcasting has also permitted the development and deployment of direct broadcast satellites, allowing people to receive news as it happens around the world (Abioye, 2016). According to Ganiyu and Akireti (2011), the following are the portable and mobile tools used by modern journalists in carrying out their daily activities: laptops, computers, smart phones, and mini pads; video cameras and accessories; USB cables; memory cards and card readers; digital videotapes and digital cameras; modems; and pocket Wi-Fi.

Digital broadcast equipment is an ICT used for gathering, storing, altering, and transmitting (communicating) information in various forms. These broadcast equipments have to do with the combination of computer technologies for relaying, retrieving, and storing information. They also involve the use of the latest computerized machinery, telecommunication, satellites, social media, the internet, and other ICT tools in today's economy, as well as the processing of information for use with electronic and communication devices such as computers, cameras, cell phones, and so on.

### 3.2 A Brief History of Delta Broadcasting Service Asaba

Delta Broadcasting Service (DBS) Asaba is one of the parastatals of the State Ministry of Information, Asaba. The station was established in July 1991 and became autonomous in July 2001, when two different managements were approved to run the two stations, which are DBS Warri and DBS Asaba.

Delta Broadcasting Service, DBS, came into being when the defunct Bendel State was split into Delta and Edo States on August 27, 1991, by former Military Head of State, General Ibrahim Badamosi Babaginda. The first military administrator of the state was Group Captain Luke Ochulor (retired), and by virtue of the state creation, Delta Broadcasting Service Asaba emerged from the former Bendel Broadcasting Service, Benin City, which later became Edo Broadcasting Service (EBS).

Before the birth of the Delta Broadcasting Service, there were two transmitting sub-stations of the old Bendel Broadcasting Service. The radio and television signals, when on full capacity, will be received throughout Delta State and beyond. Since October 2013, the broadcast outfit has been on STARTIMES CABLE NETWORK channel 113, CTL 0020.

The mission of the station is to broadcast efficiently and effectively throughout Delta State and beyond; to attract and sustain maximum viewership and listenership; to foster co-existence amongst the different ethnic groups in Delta State; and to project Delta State and her people in line with their motto, 'Beaming signals of unity' for the radio and television arm. The vision of the station is also to inform, educate, and entertain using the concepts of transmission and reception.

### 3.3 Empirical Literature

Anorue, Etumnu, Onyebuchi, and Obayi (2022) examined the effectiveness of the use of ICT by media practitioners in modern-day broadcasting. The study was anchored on the diffusion of innovation theory. The survey research design was used with a questionnaire as its instrument. One hundred and fifty-six (156) respondents were studied from Imo Broadcasting Corporation, NTA Owerri, Heartland FM, Hot FM, and One Radio. Analyses of data were presented in percentages and numbers. Findings of the study revealed that 41% of broadcast media practitioners in Imo State were moderately knowledgeable about the ICT tools used in broadcasting. It was also revealed that 64% of broadcast media practitioners moderately use ICT in their broadcast assignments. Further findings revealed that 55% of the broadcast media practitioners opined that ICT has been effective in broadcasting. Findings revealed that the challenges facing ICT in modern-day broadcasting range from poor funding, poor training of broadcast personnel, poor supply, high cost of ICT tools, and Internet-aided plagiarism on the part of practitioners. The researchers recommended that broadcast stations should effectively use ICT in their broadcast activities. It was also recommended that broadcast management make efforts to fund stations and that practitioners use the Internet professionally. While this study focused on the effectiveness of ICTS by media practitioners in modern-day broadcasting, the current study looked at the knowledge and utilization of digital broadcast equipment among Nigerian broadcast journalists.

Oyedokun (2022) examined the challenges of information and communication technologies in Nigerian radio and TV broadcasting. This paper was based on secondary data sourced from relevant existing literature and premised on the Technology Determinism Theory and Diffusion



of Innovation. The findings of this study revealed that ICT has been implemented in some broadcast media organizations across Nigeria. Although the application of ICT in broadcasting was found in this study to be beneficial, such as improved output quality, digital access to information, instant feedback, and timeliness of information dissemination, Despite the benefits, the high cost of ICT equipment acquisition and maintenance, power failure, and employees' incompetency are the notable challenges facing these media organizations in fully implementing ICTs in their operations. This paper then beseeched the management of broadcast stations in Nigeria to organise workshops and training for their employees to effectively make use of the ICT resources and set aside funds for the provision of alternative power supplies to achieve their organisational goals. While this study was focused on ICTs in radio and television broadcasting, the current study focuses on broadcast journalists' knowledge and utilization of digital broadcast equipment.

wammuo and Abiodun (2018) did an assessment of South African journalists' knowledge and application of webcasting technology. They studied journalists' knowledge and application of webcasting technology in South Africa. Anchored on Technological Determinism Theory, the study adopted a survey method to carry out the investigation. Copies of the questionnaire were distributed to practicing journalists in North West Province using purposive sampling techniques. Findings suggest that the knowledge and application of webcasting technology by journalists are very low as a result of a lack of facilities, poor internet access, computer illiteracy, and the editorial policies of the various media houses they are attached to. The work recommends that media proprietors should provide, as part of the work environment, IT software and hardware configurations so as to enable journalists to align their day-to-day operations' with international best practices. This study is centred on South African journalists' knowledge and application of webcasting technology, but the current study is centred on Nigerian broadcasters knowledge and use of digital broadcast equipment.

Eludu, Mbazie, and Ndinojuo (2016) examined the application of ICTs by broadcast professionals of the Nigerian Television Authority, NTA Channel 10, and Port Harcourt. The study's objectives were to determine the extent to which NTA uses ICT in its broadcasting, to determine whether NTA uses the website(s) for broadcasting, and to identify the benefits of ICTs to NTA broadcast professionals. The study used a survey design with personal interviews, and the data collected was qualitative. According to the study, ICTs have been widely used in television broadcasting by broadcast professionals at the Nigeria Television Authority, NTA, Channel 10, and Port Harcourt. The study results also revealed that NTA Port Harcourt does not have a website, whereas the benefits of using ICTs by NTA Port Harcourt broadcast professionals include ease of communication and easier access to information via the internet and shared network, amongst many other advantages. Making funds available to upgrade ICT facilities is one of the study's recommendations, and NTA Port Harcourt should have its own website to control its online identity, image, and domain email accounts for staff. This work was able to examine the application of ICTs by broadcast professionals of the Nigerian Television Authority, NTA Channel 10, and Port Harcourt, while the current study looked at the broadcast journalists' knowledge and utilisation of digital broadcast equipment.

Abioye (2016) studied the potential of ICT in the practice of broadcast journalism in Nigeria. Two theories, Diffusion of Innovation Theory and Development Media Theory, were reviewed in the study. The diffusion of innovation theory holds that an idea or innovation spreads in a

predictable pattern throughout a society. The use of ICT in journalism is an innovation that aims to increase efficiency and the timely delivery of news to the public. Development Media Theory posits the media should provide platforms that can accelerate the development of their respective countries by providing the public with quality news, entertainment, and political education, as it focuses on developing the production efficiency of the nation through economic, health, and political information that would develop the opinion of the masses to make informed electoral decisions. According to the study, media practitioners should stay up-to-date on new developments in their field because ICT provides numerous opportunities for excellence in the practice of modern-day journalism. Furthermore, the acceptance of ICTs by professional journalists will narrow or eliminate the gap between journalists in advanced countries and those in developing countries, such as Nigeria. In this study, media professionals were also encouraged to take advantage of opportunities for ICT training to improve their job performance. The study focused on the potential of ICT in the practice of broadcast journalism in Nigeria, while the current study focuses on the knowledge and utilisation of digital broadcast equipment among broadcast journalists.

Nwafor (2010), in his study, sought to find out the current level of ICT use in the Nigerian mass media. The work made an attempt to identify the factors responsible, the likely implications, and some measures for improved adoption and enhanced application of ICTs in the two media. The survey research method was used. At the end of the study, the findings revealed that, although the Nigerian mass media (NTA and The Guardian newspapers) have adopted the new ICTs to an extent, the level of adoption and application still falls far below expectations, especially when compared with what is obtainable in the western world. The findings attributed the underutilization of ICTs in the two media to a lack of infrastructure, e.g., electricity, few trained or skilled ICT personnel, poor knowledge of ICTs at all levels, from suppliers to users, financial constraints, corruption, poor planning, and a lack of political or ideological will. The study further revealed that the underutilization of ICTs in NT A and The Guardian newspapers has greatly hampered the quality and quantity of their programmes and contents, respectively. Based on the findings, he made the following recommendations:.. One, the government should intervene by providing an enabling environment and basic social amenities, e.g., electricity, that would assist in the smooth operation of the new technologies. This study was also able to find out the current level of ICT use in the Nigerian mass media, while the current study examined the knowledge and utilisation of digital broadcast equipment.

## 4.0 THEORETICAL FRAMEWORK

The study is anchored on a dual theoretical framework, which is Technological Determinism and Diffusion of Innovation theories.

### 4.1 Technological Determinism Theory

This work is hinged on the technological determinism theory propounded by Marshal McLuhan in 1964 (Asemah, Nwammuo, & Uwaoma, 2017). The theory is centred on the belief that technology in every given society defines the true essence of human society, seen as the driving force of culture in society and determines the course of history (Asemah, Nwammuo, & Uwaoma, 2017). Marshall McLuhan proposed the Technological Determinism Theory in 1964 to investigate the interaction between technology, media, and culture. McLuhan emphasised

the impact of communication technology on the problems we face in our daily lives. The theory argued that advances in information and communication technologies (ICTs) would extend our perspective of the world. The theory's major aim is to call media and audience attention to the hidden effects of communication technology, considered as the prime mover of all human endeavours in modern society, and technological development and innovation are the principal vehicles that drive social, economic, and political change.

According to McLuhan (1964), the features inherent in a new technology determine its growth and provide the conditions for societal transformation. McLuhan's concept of a global village is based on intrinsic qualities of electronic media, such as the removal of time and location constraints in the communication process. Dennis and Defleur (2010) affirm McLuhan's ideal world in which everyone is connected to a worldwide network of interactive communication in which everyone can be a communicator capable of generating, obtaining, storing, and propagating messages. Technological Determinism holds that as we progress from one technological age to the next, media technology impacts how we, as individuals in society, think, feel, act, and how society functions (McLuhan, 1964). The basic tenet of the Technological Determinism Theory is that media technologies shape how individuals think, feel, act, and how a society operates as we move from one technological age to another, such as from tribal to literate, print, and electronic (Gryphon 2000, cited in Talabi 2017). It may therefore be argued that technology is the main driver of social change because it is part of human existence and that the ability of man to invent and drive technology is what distinguishes him from other living species (Obalanlege, 2015). However, technology is just what it is until it is adopted and functional. All technologies take time to be developed, accepted, and widely adopted by their users (Talabi, 2017). Hence, the assumptions of the technology determinism theory are insufficient. This makes the theoretical constructs of the diffusion of innovations necessary, and the combination of the two theories is relevant and imperative in this study.

## 4.2 Diffusion of Innovation Theory

This study was also anchored on the diffusion of innovation theory, which was propounded by Ryan and Cross (1943) and Everett Rogers (1960). According to Katz, Levin, and Hamilton (1963), it means the process of spreading a given new idea or practice over time, via specified channels or through social structures. Rogers and Shoemaker (1971) defined innovation as "an idea, practice, or object perceived as novel by an individual." According to Katz (1963), diffusion is the process of spreading a given new idea or practice over time through specific channels or social structures. Simply put, diffusion refers to man's internalisation, adoption, practice, and application of new ideas as an individual or as a member of a social group. As a result, conscious exposure to the implementation, application, and utilisation of new ideas, practices, or objects is required for innovation diffusion. Thus, the diffusion of innovation theory focuses on how innovative concepts, discoveries, practices, or technologies are dispersed among members of a social system.

As opined by Coleman, Katz, and Menzel (1966), for a new idea or innovation to spread, there must be an awareness stage, a trial stage, and an adoption stage. Thus, the effect of the innovation campaign is far from hypodermic. This means that it is difficult to achieve immediate changes in attitude and behaviour through the diffusion of innovation. As a result, Rogers (1965) explains that when new technological innovations are introduced, they will pass



through a series of stages before becoming widely adopted. First, most people will be aware of the innovations; second, the innovations will be adopted by a very small group of innovators or early adopters; third, opinion leaders will follow the lead of the early adopters and try out the innovation themselves; and fourth, if opinion leaders find the innovation useful, they will persuade their friends, the opinion followers. Finally, after most people have embraced the innovation, a group of laggards or late adopters will join. Griffin (2000) posited that McLuhan divided human history into four distinct eras: the tribal age, the literate age, the print age, and the electronic age. Each new phase determines how society operates.

Technological innovations have remained determinants of change in the broadcast media industry (Nyekwere, 2009). As a result of technological advancements, we now have an analogue and digital era. Digital technology comes with high-quality pictures and sound, easier and faster editing, minimal interference, and speedy transmission, among others (Kombol, 2008). Thus, broadcast media organizations are making a concerted effort to upgrade both their personnel and equipment to fit into the new digital era.

The Diffusion of Innovations Theory has been of interest to communication scholars and formed the core of their research based on the highly technological innovations witnessed in the media industry. According to Rogers (1983), diffusion is a process by which an innovation is communicated through certain channels over time among the members of a social system. This is “a theory that seeks to explain how, why, and at what rate new ideas and technology spread through cultures” (Lewis, 2009). Though its origin could be credited to contributions from different scholars across diverse fields, the theory was popularised by Everett Rogers, a professor of rural sociology, in his 1962 book *Diffusion of Innovations*. He describes diffusion as the process by which an innovation is communicated through certain channels over time among the members of a social system. Furthermore, the diffusion of innovation theory posits that a decision to adopt an innovation could be made and implemented voluntarily by an individual or be compulsively made. The theory acknowledges that adoption of a new idea, behaviour, or product (i.e., “innovation”) does not happen simultaneously in a social system; rather, some people are more likely to adopt an innovation faster than others. In other words, individuals in a society have varying degrees of flexibility towards adopting innovations. Thus, Rogers (1963, p. 150) posits that there are five different “adopter categories” as follows: innovators, early adopters, early majority, late majority, and laggards. Viewed from the underlining assumptions of the diffusion of innovation theory, it becomes imperative to note that Delta broadcasting service journalists who are part of the technological changes heralded by the new media become early adopters of this transformation so that they come to terms with its utilization.

More so, digital technology will thrive if its adopters are conversant with the way it works. Eze et al. (2017), citing Rogers (1995), enumerate five stages of the adoption process. These include: Awareness, Interest, Evaluation, Trial and Adoption stages. The technological determinism theory is relevant to this study because society has gradually drifted from the tribal era to the electronic era, where digital broadcast is predominant. Digitalization is the hallmark of the electronic era, as postulated by Marshal McLuhan (Ogri & Henshaw, 2019). The relevance of this theory to the study is anchored on the fact that media technological products and facilities are introduced and adopted by broadcast stations in order to use them to reach the audience more efficiently.

## 4.3 Justifications for Using the Two Theories

Given the overall objectives of this study, combining the Technological Determinism and Diffusion of Innovation theories as a framework is relevant. On the one hand, the Technological Determinism Theory is used to explain how digital switchover as a new media technology would shape the thinking, feelings, and operations of the broadcast stations as they move from analogue broadcasting to digital terrestrial broadcasting. This study is based on the principle of technological determinism because it helps us understand how new media technology influences how journalism is conducted. It also allows us to comprehend how television and radio stations use ICT in their newsroom operations to make work easier, strengthen house style, bridge gaps, and improve delivery methods and output quality. The theory is appropriate to this study since technological advancements have radically altered the entire complex systems of time, place, and communication obstacles, as well as improved the quality of media material. Therefore, the introduction of this new technology (digital) has changed the way media professionals now gather, process, and disseminate information to the target audience. In other words, the changes observed today in the broadcast media industry are driven and determined by technology. Griffin (2000) posited that McLuhan divided human history into four distinct eras: the tribal age, the literate age, the print age, and the electronic age. Each new phase determines how society operates. The technological determinism theory is relevant to this study because society has gradually drifted from the tribal era to the electronic era, where digital broadcast is predominant.

On the other hand, diffusion of innovation theory would explain how broadcast stations, as adopters of digitization, consider the knowledge and usefulness of digital technology in terms of its importance as a global innovation aimed at improving the entire broadcast industry across the world, as well as how the viewing public would adapt to the innovation. Technological innovations have remained determinants of change in the broadcast media industry (Nyekwere, 2009). As a result of technological advancements, we now have an analogue and digital era. Digital technology comes with high-quality pictures and sound, easier and faster editing, minimal interference, and speedy transmission, among others (Kombol, 2008). Thus, broadcast media organizations are making a concerted effort to upgrade both their personnel and equipment to fit into the new digital era.

## 5.0 METHODOLOGY

This study employed the quantitative research design, which is a descriptive survey. The area of study was Asaba, the capital city of Delta State, one of the states in the south-south geopolitical zones of Nigeria. Delta Broadcasting Service, which is the official state radio and television station of the state, is the focus of this study. The population of this study involves all the broadcast journalists employed by Delta Broadcasting Service, Asaba, comprising a total of 119 broadcast journalists, according to data supplied by the personnel department of the station. These journalists are on the payroll of the station. Given the smallness of the population in this study (119), the researcher settled for a census study. The questionnaire was the instrument used in gathering data for the study. The results of the analyses were presented using statistical tools such as frequencies and percentages. The Statistical Packages for Social Sciences (SPSS) were used to run or process the quantitative data.

## 6.0 RESULTS

### 6.1 The Journalists' Knowledge of the Use Digital Broadcast equipment

**Table 1: Knowledge of the Use of digital broadcast equipment among Broadcast Journalists in DBS**

Variables	Percentages (%)
Yes	100% (N=119)
No	0%
I don't know	0%
<b>Total</b>	<b>100% (N=119)</b>

The data from this table shows that 100% of the respondents agreed that they use digital broadcast equipment. The implication of this is that all of the respondents agree that they make use of digital broadcast equipment in the station

**Table 2: How long the Broadcast Journalists have had knowledge of the digital equipments**

Variables	Percentages (%)
1 – 2 years	46% (N=54)
3 – 4 years	36% (N=43)
5 years and above	18% (N=21)
<b>Total</b>	<b>100% (N=119)</b>

Data from this table shows that 45.45% of the respondents have knowledge of the digital equipment between 1 and 2 years, 36.36% have been aware of the digital equipment between 3 and 4 years, and 18.19% have had knowledge from 5 years and above. The implication of this is that the majority has had knowledge of digital equipment in more recent years (between 1 and 2). As they have some knowledge of these facilities, there is a need to establish their level of use of them.

**Table 3: The digital equipment DBS Broadcast Journalists use in the Radio Studio**

Variables	Percentages (%)
FM Transmitters	12% (N=14)
Audio Mixer	15% (N=18)
Sound Processors	15% (N=18)
Recording/ Playback devices	14% (N=17)
Audio Monitors	9% (N=11)
Talkback System	9% (N=11)
Studio-to-transmitter Link STL	13% (N=15)
Studio Mics	13% (N=15)

<b>Total</b>	<b>100%</b> <b>(N=119)</b>
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Data from this table shows various digital broadcast equipment being used by the digital broadcast journalists in the studio. The equipment identified by the journalists includes: FM transmitters (12%), audio mixers (15%), sound processors (15%), recording and playback devices (14%), audio monitors (9%), a talkback system (9%), a studio-to-transmitter link (13%), and studio mics(13%). These show that there is various digital broadcast equipment being used by the broadcast journalists in the Delta State Broadcasting Service.

**Table 4: The digital equipment DBS Broadcast Journalists use in the Television Studio**

<b>Variables</b>	<b>Percentages (%)</b>
Video Switcher	14% (N=17)
Audio Switcher	14% (N=17)
Sound Processors	14% (N=17)
Digital Video Camera	14% (N=17)
Monitors	11% (N=13)
Talkback System	7% (N=8)
Studio-to-transmitter Link STL	13% (N=15)
TV Transmitter	13% (N=15)
<b>Total</b>	<b>100% (N=119)</b>

Data from this table shows various digital broadcast equipment being used by the digital broadcast journalists on their television station. The equipment identified by the journalists includes: video switcher (14%), audio mixer (14%), sound processors (14%), digital video camera (14%), monitors (11%), talkback system (7%), studio-to-transmitter link (13%), and TV transmitter (13%). These show that there is various digital broadcast equipment being used by the broadcast journalists on the television station.

**6.2 The extent to which staff members of DBS utilize digital broadcast equipment**

**Table 5: How long the Broadcast Journalists have been using the digital equipment**

<b>Variables</b>	<b>Percentages (%)</b>
1 – 2 years	50% (N=59)
3 – 4 years	36% (N=43)
5 years and above	14% (N=17)
<b>Total</b>	<b>100%</b>

Data from this table shows that half of the broadcast journalists (50%) have been using digital broadcast equipment for 1-2 years. Another 36% of the respondents have been using the digital broadcast equipment for 3–4 years now, while the remaining 14% have been using the equipment for 5 years and above. The implication of this is that the majority of broadcast journalists at DBS have been using digital broadcast equipment for about two years.

**Table 6: Whether the Utilization of digital broadcast equipment has made broadcasting easy**

<b>Variables</b>	<b>Percentages (%)</b>
Yes	100% <b>(N=119)</b>
No	0%
<b>Total</b>	<b>100%</b> <b>(N=119)</b>

As shown in this table, all the broadcast journalists at DBS recognised the fact that using digital equipment makes broadcasting easy. These illustrate the relevance of digital broadcast equipment for quality broadcasting.

**6.3 Challenges inhibiting the use of digital broadcast equipment**

**Table 7: Are there challenges faced in the use of digital equipment?**

<b>Variables</b>	<b>Percentages (%)</b>
Yes	100% <b>(N=119)</b>
No	0%
<b>Total</b>	<b>100%</b> <b>(N=119)</b>

According to this table, the study found from the respondents that there are some challenges inhibiting the use of digital broadcast equipment among the broadcast journalists at DBS, Asaba.

**Table 8: The major challenges facing the utilization of digital broadcast equipment**

<b>Skilled Manpower</b>	<b>Percentages (%)</b>
Yes	95%
No	5%
<b>Total</b>	<b>100%</b>
<b>Insufficient Staff Training</b>	<b>Percentages (%)</b>
Yes	99% (N=118)
No	1% (N=1)
<b>Total</b>	<b>100%</b>
<b>Inadequate Fund</b>	<b>Percentages (%)</b>
Yes	100% <b>(N=119)</b>
No	0%
<b>Total</b>	<b>100%</b> <b>(N=119)</b>
<b>Staff Carelessness</b>	<b>Percentages (%)</b>
Yes	5% (N=6)
No	95% (N=113)
<b>Total</b>	<b>100%</b> <b>(N=119)</b>



<b>Poor management of station’s equipment</b>	<b>Percentages (%)</b>
Yes	4% (N=5)
No	96% (N=114)
<b>Total</b>	<b>100% (N=119)</b>

This Table shows that 95% of the respondents agree that skilled manpower is one of the major challenges facing the utilisation of digital broadcast equipment at DBS Asaba. The implication of this is that there is a need for on-the-job training to ensure improved manpower as part of measures to address this challenge in quality broadcasting. The table also shows that 99% of the broadcast journalists (nearly all of them) recognise inefficient staff training as a major challenge inhibiting the use of digital broadcast equipment in DBS Asaba. The implication of this is that there is a need for broadcast journalists to obtain the relevant training, even when the government seems to have minimal provisions for such. It was also revealed in the table that all the broadcast journalists (100%) hold the view that inadequate funding is a major challenge facing the use of digital broadcast equipment in DBS Asaba. The implication of this is that there has been a case of insufficient funds as the workers receive meagre salaries and allowances for the station's upkeep. Given the level of budgetary provisions given to the station by the government, there is a need for on-the-job training to ensure improved manpower as part of measures to address this challenge in quality broadcasting. Meanwhile, 95% of the respondents disagree that the carelessness of staff is a contributory challenge facing the use of digital broadcast equipment in DBS, Asaba, while only 5% of them hold a contrary view. This table implies that the majority of the respondents disapproved of the idea that the carelessness of staff is a problem facing the effective use of digital broadcast equipment at DBS, Asaba. However, 96% of the respondents declined that poor management of the station's equipment is a contributory challenge facing the use of digital broadcast equipment at DBS, Asaba, while the remaining 4% of them had an opposing view. The implication is that poor management of the station’s equipment is not mainly considered a contributory challenge facing the use of digital broadcast equipment in BDS, Asaba.

**Table 9: Any efforts to ameliorate the challenges in the use of digital broadcast equipment?**

<b>Variables</b>	<b>Percentages (%)</b>
Yes	100% (N=119)
No	0%
<b>Total</b>	<b>100% (N=119)</b>

Data in Table 18 shows that all the broadcast journalists (100%) agreed that there are efforts to ameliorate the challenges faced in the use of digital broadcast equipment in DBS, Asaba, The implication of the above is that all the respondents agree that efforts to solve the problem facing the effective use of digital broadcast equipment in DBS, Asaba, are being made.

**Table 10: Attended any workshop by the station on the utilization of digital broadcast equipment?**

<b>Variables</b>	<b>Percentages (%)</b>
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Yes	64% (N=76)
No	36% (N=43)
<b>Total</b>	<b>100% (N=119)</b>

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Data from table 19 shows that 64% of the respondents agreed to have attended workshops on the utilisation of digital broadcast equipment by their station before, while the remaining 36% said that they had not attended any such workshops before. The implication of this is that the majority of the respondents have attended workshops on the utilisation of digital broadcast equipment.

**Table 11: Whether workshop training help in the utilization of digital equipment among Broadcast Journalists in DBS**

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Variables	Percentages (%)
Yes	77% (N=92)
No	23% (N=27)
<b>Total</b>	<b>100% (N=119)</b>

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Data from table 20 shows that 77% of the respondents agreed that the workshop training has increased their utilisation level of digital broadcast equipment, while 23% of them do not agree that the training has increased their utilisation level of digital broadcast equipment. The implication of this is that the majority of the respondents who have attended workshop training agree that such training has helped in their utilisation of digital broadcast equipment in DBS, Asaba.

## 7.0 DISCUSSION OF FINDINGS

The study established that all the broadcast journalists (100%) know about the digital broadcast equipment in the studio, suggesting that there is widespread knowledge of the digital broadcast equipment required in the studio among broadcasters, even though the equipment is not all provided for their use. In terms of the proportion of broadcasters in Delta Broadcasting Service that are knowledgeable of the use of digital broadcast equipment, the study found that 100% of the respondents agreed that they use digital broadcast equipment, suggesting that all of the respondents make use of digital broadcast equipment. Also, 46% of the respondents have knowledge of the digital equipment between 1 and 2 years; 36.% of them have been aware of the digital equipment between 3 and 4 years; and 18.19% have knowledge from 5 years and above. The implication of this is that the majority has had knowledge of digital equipment in more recent years (between 1 and 2). These are in line with the findings of Nwagbara and Asak (2016) that the Internet has changed the way broadcast journalists in Rivers and Bayelsa States perform their professional duties, especially in the use of Internet tools for gathering information and surveillance of their immediate environment and beyond.

The study further established that there are various digital broadcast equipments being used by the digital broadcast journalists in the studio. The equipment identified by the journalists includes: FM transmitters (12%), audio mixers (15%), sound processors (15%), recording and playback devices (14%), audio monitors (9%), a talkback system (9%), a studio-to-transmitter link (13%), and studio mics (13%). These show that there is various digital broadcast

equipment being used by the broadcast journalists in the Delta State Broadcasting Service. Similarly, it was also found that there are various digital broadcast equipments being used by the digital broadcast journalists on their television stations. The equipment identified by the journalists includes: video switcher (14%), audio mixer (14%), sound processors (14%), digital video camera (14%), monitors (11%), talkback system (7%), studio-to-transmitter link (13%), and TV transmitter (13%). These show that there is various digital broadcast equipment being used by the broadcast journalists on the television station.

In terms of the extent to which broadcasters in DBS utilise digital broadcast equipment, the study found that half of the broadcast journalists (50%) have been using digital broadcast equipment for 1-2 years. Another 36% of the respondents have been using the digital broadcast equipment for 3-4 years now, while the remaining 14% have been using the equipment for 5 years and above. These imply that the majority of broadcast journalists at DBS have been using digital broadcast equipment for about two years. Also, all the broadcast journalists at DBS recognised the fact that using digital equipment makes broadcasting easy. These illustrate the relevance of digital broadcast equipment for quality broadcasting.

However, the study found that all the respondents agreed that there are some challenges inhibiting the use of digital broadcast equipment among the broadcast journalists in DBS, Asaba, and 95% of the respondents agreed that skilled manpower is the major challenge facing the utilisation of digital broadcast equipment in DBS, Asaba. The implication of this is that there is a need for on-the-job training to ensure improved manpower as part of measures to address this challenge in quality broadcasting. This echoes the observations of Abioye (2016) that media practitioners should stay up-to-date on new developments in their field because ICTs provide numerous opportunities for excellence in the practice of modern-day journalism.

The study also found that 99% of the broadcast journalists (nearly all of them) recognise inefficient staff training as a major challenge inhibiting the use of digital broadcast equipment in DBS Asaba, suggesting that there is a need for the broadcast journalists to obtain the relevant training even when the government seems to have minimal provisions for such. It was further established in this study that all the broadcast journalists (100%) consider inadequate funding as a major challenge facing the use of digital broadcast equipment at DBS Asaba. The implication of this is that there has been a case of insufficient funds in the station as the workers receive meagre salaries and allowances for the station's upkeep, given the level of budgetary provisions given to the station by the government. These justify the need for on-the-job training to ensure improved manpower as part of measures to address this challenge in quality broadcasting. Besides, 95% of the respondents disagree that the carelessness of staff is a contributing challenge facing the use of digital broadcast equipment at DBS, Asaba. These support the findings of Mathew, Ogedebe, and Abaya (2013) that challenges encountered by broadcast media practitioners while using the internet include erratic power supply, lack of access to the internet, low internet connectivity, and harsh weather conditions. Similarly, Nwafor (2010) also attributed the underutilization of ICTs in media organisations to a lack of infrastructure, e.g., electricity, few trained or skilled ICT personnel, poor knowledge of ICTs at all levels, from suppliers to users, financial constraints, corruption, poor planning, and a lack of political or ideological will. Anorue, Etumnu, Onyebuchi, and Obayi (2022) also discovered that the challenges facing ICT in modern-day broadcasting range from poor funding, poor training of broadcast personnel, poor supply, high cost of ICT tools, and internet-aided

plagiarism on the part of practitioners. Similarly, Oyedokun (2022) maintained that despite the benefits of ICT, the high cost of equipment acquisition and maintenance, power failure, and employees' incompetency are the notable challenges facing these media organisations in fully implementing ICTs in their operations. Besides, power outages, the high cost of ICT tools, and the high cost of training are all factors that work against the use of ICT by broadcast professionals (Eludu & Ndinojuo, 2016).

The study also found that all the broadcast journalists (100%) agreed that there are efforts to ameliorate the challenges faced in the use of digital broadcast equipment in DBS, Asaba, suggesting that all the respondents agree that efforts to solve the problem facing the effective use of digital broadcast equipment in DBS, Asaba are being made. It was also found that 64% of the respondents agreed to have attended workshops on the utilisation of digital broadcast equipment by their station before, while the remaining 36% said that they had not attended any such workshops before. The implication of this is that the majority of the respondents have attended workshops on the utilisation of digital broadcast equipment. It was further established that 77% of the respondents agreed that the workshop training has increased their utilisation level of digital broadcast equipment, while 23% of them do not agree that the training has increased their utilisation level of digital broadcast equipment. The results show that the majority of the respondents who have attended workshop training agree that such training has helped in their utilisation of digital broadcast equipment at DBS, Asaba. This is in support of the stand of Obayi, Onyebuchi, and Uwanuakwa (2018) that ICT has improved journalism practice.

## 8.0 CONCLUSION

The study concludes that broadcast journalists at DBS Asaba are aware of the digitization of broadcasting. They are conversant with the idea that digital broadcasting is an upgrade to analogue broadcasting but believe that their station has not yet achieved full digital broadcasting. The study further concludes that there is widespread knowledge and use of digital broadcast equipment required in the studio among broadcasters, even though the equipment is not all provided for their use by the government, and that these broadcasters have had knowledge of the digital equipment more predominantly. The study also concludes that there are some challenges inhibiting the use of digital broadcast equipment among the broadcast journalists in DBS, Asaba, which include skilled manpower, inefficient staff training, and inadequate funding. However, despite the commendable level of knowledge and utilisation of digital broadcast equipment among the Delta Broadcasting Service journalists, there are still some rough edges in the use of that digital equipment that needed to be smoothed out for a complete success in the use of digital broadcast equipment in the station.

## 8.1 Recommendations

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

1. There is a need to intensify training and retraining of the Delta Broadcasting Service staff, especially those in the News/Programmes and Technical/Engineering departments who, on a daily basis, make use of the digital equipment, so as to position them to better serve the audience.

2. More personnel with sound knowledge of digital broadcast equipment should be employed to bridge the gap of inadequate manpower.
3. There is a need for the government of Delta State as well as well-meaning indigenes of Delta State to prioritize the funding for digital broadcast equipment and also see to the timely payment of the digital broadcast journalists to ensure maximum commitment and efficiency from them.
4. Digital broadcast equipment should be consistently used to enhance quality and timely broadcasting by DBS.

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