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# Migration from Analogue to Digital Broadcasting: The Disparity between Government and Private Media Stations in Delta State

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**Abstract**
The study investigates migration from analogue to digital broadcasting in selected government and private media stations in Delta State. The objectives include examination of availability of digital equipment, the patterns of equipment use, and the investigation of the impact of digital broadcast equipment in government and private media stations. The study is anchored on the technological determinism theory and used a cross-sectional research design on a sample of 186. The study reveals digital equipment are available in both private and government owned stations but are employed more by private TV stations and that the marked disparity gives private stations greater impact. The study recommends that government should encourage the training of media personnel to enable them to handle digital equipment to ensure better service to consumers.

Keywords: Digitalization, Digital Broadcasting, Analogue broadcast

## Introduction

The 21st century is marked by tremendous and life-changing technological breakthroughs which have automatically kept the world trendy, moving it from the analogue to the digital sphere. This has led to rapidly growing innovative capacities of many countries all over the world in all sectors, the broadcast media sector inclusive. Technological innovation according to Onyiaji and Okwumba (2019) provided a platform for evolution in the broadcast media business by allowing a significant shift in the last two decades. Technological innovation has resulted in moving away from analogue broadcasting, which is characterized by limited spectrum, poor sound quality, poor quality picture, difficulty in accessing tapes, editing limitations and signal interference to digital terrestrial transmission which offers improved transmission, low-cost maintenance, reduction in energy usage, and better viewing experience for the audience. These huge benefits are the motivation behind the transition schedule advised by the International Telecommunication Union (ITU) at the 2006 Regional Telecommunication Conference. (BAZ, 2012 & William, 2022).

The Geneva 2006 agreement which propelled the Nigerian government's action in 2009 on the white paper emphasized 17th June 2015 and 17th June 2020 for participating countries to mandatory switchover all Ultra High Frequency (UHF) and Very High Frequency(VHF) from analogue to Digital Transmission Terrestrial Broadcasting (Aihe, 2008; Kabir, 2012). This period internationally marked the paradigm shift from the analogue broadcast era to the digital broadcast regime. Nigeria could not afford to miss out on this opportunity, so the then president, Alhaji Umaru Musa Yar'Adua, keyed into the vision of transiting from the analogue broadcast operations to digital broadcasting in Nigeria with effect from 17th June 2012 in agreement with the ITU resolutions (Omale, Ekhaerafo & Essien, 2016).

The International Telecommunication Union conference's main concern was the switchover or transition from analogue to digital broadcast media and the level of agreement was massive. At the Geneva agreement, a hundred and nineteen (119) countries including Nigeria agreed on 2015 as the deadline for the switchover from analogue broadcast operations to the digital broadcast era. However, a window of five additional years was given (2015 – 2020) to create room for a significant number of African countries including Nigeria to embrace the switchover plan (Ogiri & Henshaw, 2019). It was on this premise that the federal government of Nigeria inaugurated the Presidential Advisory Committee (PAC) to design a roadmap for the successful switchover in line with the current trend. The outcome of the committee was the government white paper on the transition from analogue to digital terrestrial broadcasting in Nigeria (Ukwela, 2016). This was hinged on the information and technological innovation that was already penetrating the broadcast industry. The fact remains that the growth and trajectory of mass media are tied to technological advancement as evidenced by the large media outfits such as CNN, BBC and VOA whose vast reportage and instantaneous reporting are direct products of technological innovations in the media world (Oji, 2020; Mcmillan, 2016). Delta Rainbow Television, Delta Broadcasting Service, Quest 93.1 FM and Crown FM are in the broadcast business as a result of technological advancement. Nigeria's decision to migrate from

analogue to digital broadcasting marks a new phase in the history of broadcasting in Nigeria (Ufuophu-Biri, 2016).

**Statement of the Problem**

The broadcast media have passed through different phases since the inception of technological innovation which resulted in moving away from black and white to coloured television to satellite television down to the present wave of digital broadcasting. Thus, today, the digitalisation of broadcast media is the main thing. Every broadcast media outfit puts in place a concerted effort to digitalise broadcast operations. DRTV, Warri, DBS, Asaba, Quest 93.1 FM, Ughelli and Crown FM, Effurun seem to be making efforts to fully switchover from analogue to digital broadcasting. Digitalised broadcast operations have a great edge over the analogue system because of their capacity to produce clearer pictures, quality sound, speedy processing and transmission of information, reduction in the cost of production, lesser energy usage and multiple programme choices. As important as the need to switchover from analogue to digitalised broadcast operations is, there seems to be a yawning gap existing between government and private media stations in terms of availability of digital equipment, usage of digital equipment and impact of digital broadcast equipment. Jemine (2021) opined that private media stations utilise digital equipment more in comparative terms than government media stations.

The above may have informed the position of Olagoke (2015) when he opined that most private and government-owned media outfits are yet to make digital transmission part of their daily broadcasting. This may be the seeming disparity that exists between private and government-owned media outfits in the area of digital broadcast compliance. Hence, this work examined the disparity between selected government and private media stations in Delta State in the migration from analogue to digital broadcasting.

**Objectives of the Study**

The main objective of the study was to examine the migration from analogue to digital broadcasting to underscore the difference between selected government and private media stations in Delta State. The specific objectives were to:

i. examine the available digital equipment in government and private media stations;
ii. find out how often digital equipment is used in government and private media stations and
iii. examine the impact digital broadcast equipment has on government and private media stations

**Research Questions**

The following research questions were developed to guide the study:

i. What digital equipment is available in government and private media stations?
ii. How often is digital equipment used in government and private media stations?
iii. What impact does digital equipment have on government and private media stations?

**Conceptual and Literature Review**

Digitalised broadcasting is an improved and technologically advanced means of transmitting broadcast signals to a dispersed audience. It is also the use of digits in disseminating and receiving information. However, Orlu-Orlu (2017) opined that digital means the application of digits or numbers in the representation of information. In this regard, digital broadcasting is a means of ensuring capacity in broadcast transmission networks by improving spectrum efficiency (Plum, 2014). By implication, digital broadcast content is considered superior in quality compared to analogue broadcast. In addition, digital broadcasting offers multiple programme options, and minimized energy usage among others, thus creating an unavoidable avenue for a shift of attention from analogue to digital. Some requisite equipment needed to foster digital broadcast operations is a studio mixing board, microphones, headphones, digital cameras, broadcast media server for television automation, capture cards for ingesting live material, scheduler, hardware encoder, studio transmitter link, streaming receiver, digital TV transmitter, digital mixer, digital monitors, virtual studio equipment, satellite technology, capture card, streaming digital receiver (Inaba & Kolia, 2016).

Digitalisation is one of the hallmarks of technological innovation that revolutionised the broadcast industry in the 21st century. It is a system that possesses the capacity to transform analogue information of all kinds be it pictures, text, or graphics images into digits for transmission and reception by the broadcast audience who are the end receivers of every programme and who must possess the right apparatus of reception. Digitalisation, simply put, is the conversion of analogue information into digits. According to Idachaba (2018), digitalisation is the process of conversion of analogue information in any form: text, photographs, voice, e.t.c to digital form with suitable electronic devices such as a scanner or specialized computer chips so that information can be processed, stored and transmitted through a digital circuit, equipment and network.

The implication of the above is that for digital broadcast to take effect in any broadcast organisation the latest gadgets that will facilitate the process must be acquired by the broadcast stations. Similarly, Balarabe (2013) noted that digitalisation is a process of converting analogue information into digital format. According to him, the materials to be converted include letters, manuscripts, recording microforms, maps, motion pictures, and ephemera among others. He added that the goal of digitalisation is to improve access to the materials making it possible for them to be searchable via databases on the internet or reception through a television set in a clearer and sharper form. Njogu (2016) described digitalization from a beneficial perspective of it when he asserted that digital broadcasting is transmitted on radio frequency through space just like standard analogue television with the main difference being the use of multiplexer transmitter to allow reception of multiple channels on a single frequency range such as an ultra-high frequency (UHF) or very high frequency (VHF) channels. This is in agreement with the assertion of Ebuebu (2016) who opined that digitalization of television station's operation allows images with 720 to 1080 horizontal lines resolution as compared with 480 lines of ordinary analogue television systems. According to Ufuophu-Biri and Ijeh (2021), digitalization is the use of digital technologies for communication and entertainment. This has made it possible for viewers to enjoy a lot of entertaining programmes in the comfort of their homes.

In addition, digital television offers interference-free, quality sound and multiplexing of up to 6 channels under one bandwidth. Okhakhu (2015) on his part described digitalisation as the cutting-edge technology that enables the broadcast industry to do away with the obsolete method of transmission. He further noted that digitalisation is about making broadcast transmission to be digitally compliant; by implication, television means nothing but quality of broadcast transmission that requires improvement. This is in agreement with the position of Jayson (2014) that digital transmission (also called digital switch-over or analogue-switch off) which analogue television is converted to and replaced by digital television. Similarly, Gupt (2020) referred to digitalisation as creating a digital representation of physical objectives or attributes. It is about converting something non-digital into a digital representation or artefact. Digitalisation is said to be the first significant innovation service in the evolution of broadcast technology of television in the 1950s (Ogiri & Henshaw, 2019).

**Benefits of Digitalisation**

The digitalisation of broadcast operations is a direct offshoot of technological breakthroughs in the broadcast industry and the benefits derived cannot be overemphasized. Digitalisation has opened a new chapter for the broadcast media industry thereby erasing the era of analogue-based operations that before now characterized the broadcast industry. This new era has brought notable benefits such as clearer pictures and sounds. It is in this vain that Karimsabbagh (2013) noted that the advent of digital technologies is meant not only a quantitative leap in the production and distribution tools by the media but also benefits users enjoy as they have become active agents in the communication circuit. The listeners and viewers across the globe value added in terms of the number of programmes they are exposed to on daily basis. This latest trend allows broadcast stations to transmit a lot of programmes simultaneously on a single frequency using the same transmitter which is impossible with analogue technology. The analogue technology can transmit only one programme on a single frequency on one transmitter (BAZ, 2012). Viewers and listeners who have the required apparatus will have access to internet services and information as well as free digital television content (Adaramola, 2017 & Kawu, 2017).

The digitalisation of broadcast takes care of visual distortion that is often associated with analogue transmission. Low-cost maintenance, reduction in energy usage and support from vendors and among others are the benefits derivable from the digitalisation of broadcast operations (Aginam, 2017) This is in line with the view of Dokepsi (2008) who articulated that digitalisation has cut down the cost of media operations. He noted that a task that is supposed to be done by twelve is now handled by one individual with little or no stress. According to Olalere, Oyeyinka, Lateef, Olakunle, Kenneth, Rauf, Omolay Omolayo and Nwolikpe (2013), digitalisation provides more internet expansion. This assertion agrees with ITU's press statement which detailed that the digitalisation of television will allow more room for spectrum expansion for the nation's broadband and internet penetration.

Technically, digital television transmission (DTT) provides better signal quality which increases the rejection of noise and frequency interference during transmission (Plum, 2014). This corresponds with the assertion of Ihechu and Uche (2012) who clearly stated that digital broadcasting provides clearer and quality signals and spectrum. Since technology opened a world of possibilities for broadcasting a huge spectrum is available for radio and television broadcasting in the country. It also avails broadcast stations with opportunities for interactive broadcasting as television set now does more than only receive signals. Also, digital broadcasting equipment allows simultaneous transmission of a minimum of four programmes and four channels from the same station that used to transmit only one programme or channels in the analogue transmission (Idachaba, 2013). The lukewarm attitude of most journalists to upgrade their skills through training whenever the opportunity comes has remained a hindrance to reaping the drivable benefits from digitalisation in the ever-dynamic broadcast media industry (Nwanne, 2014).

**Analogue to Digital Broadcasting in Nigeria**

The transition effort of the nation's broadcast media from analogue to Digital Terrestrial Transmission also known as digital broadcasting was not smooth This is because several attempts were made and failed. Nigeria failed to meet the proposed date of June 17, 2012, June 2015 and June 2017 respectively for DSO because of its inability to meet up with the digital switchover requirement process (Okonji, 2017 and Limmer, 2017). However, Nigeria continued to make efforts towards the actualization of digital broadcasting through the National Broadcasting Commission (NBC).

The National Broadcasting Commission (NBC) in recognition of the imperativeness of digitalization as an important Global Convergence Movement by the International Telecommunication Union set the ball rolling because of the belief that digitalisation will revolutionalise the broadcast media industry. This is in consonant with the view of (Ndukwe 2009) who asserted that the switch over from analogue to digitalised broadcasting will affect the pattern of broadcast production in terms of content production, transmission and reception as every aspect will need a technical upgrade to facilitate digital broadcast.

The National Broadcasting Commission held a meeting in 2007, where it inundated the 38th National Council on Communication and Information on the urgent need to key into the global trend called digitalisation. In December 2007, the late President, Umaru Musa Yar Adua empowered the Commission (NBC) to pilot the nation's digitalization process with a targeted date. In its effort to speed up the nation's digital switchover, NBC encouraged the operators of cable TV and terrestrial TV operators such as Star Times to digitalise their operations. A year later, on June 3rd, 2008 precisely, a stakeholders meeting was organised by the commission, the meeting attendance Senate Committee on Media, the then Chairman, the House Committee on Information and more than four hundred participants, including chief executives of both government and private media stations, policymakers, lawmakers, non-governmental organization and among others.

The importance of migrating from analogue to digital broadcasting in line with ITU guidelines was emphasized at the meeting. Stakeholders urged the government to pursue the digitalisation policy by providing the necessary structure, infrastructure, and digitalisation task force as well as adequate funding to facilitate a smooth transition (NBC, 2008). In addition, stakeholders at the conference encouraged digital

studio equipment compliance, content provision, new coverage planning and broadcast personnel training and public awareness as a necessary step toward switchover. It also urges the government to take responsibility for designing a plan that will incorporate policy, the pace of transition, purchase of set-top boxes for existing receivers already in the country. Based on the outcome of the conference, the commission put in place sustained publicity in radio, television and print media to sensitize the public on the importance and implication of digitalisation as while as the role of different stakeholders. To fast-track the digital project, the Federal Government inaugurated the Presidential Advisory Committee ( PAC) on the 13th of October, 2008 with some terms of reference (Ronald, Neal & Gregory, 2008).

Digital equipment and its installations are capital-intensive, and the resources needed to acquire them are not readily available (Chima, 2014). In a similar view, Maduka (2015) noted that the switchover from analogue to digital broadcasting requires huge investment in equipment and gadgets, but the availability of funds remains a source of worry. In all these, the government and private media stations are not operating at the same level in terms of quality sounds and clearer pictures which are indicators of digitalised broadcasting.

**Theoretical Framework**

This work is hinged on the technological determinism theory propounded by Marshal McLuhan in 1964 (Asemah, Nwammuo and Uwaoma, 2017). The theory is centred on the belief that technology in every given society defines the true essence of human society. Technology is seen as the driving force of culture in society and determines the course of history. Thus, considers technology as the prime mover of all human endeavours in modern society and technological development innovation as the principal vehicle that drives social, economic and political change. Drew (2022) noted that advancement in technology ushers in a new phase in human history; it changes the course of human history over time. The broadcast media industry as part of society is also affected by any change that occurs in society since it does not operate in a vacuum. Grifin (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 the digital broadcast is predominant. Digitalisation is the hallmark of the electronic era as postulated by Marshal McLuhan (Ogiri & Henshaw, 2019). Technological innovations have remained determinants of change in the broadcast media industry (Nyekwere, 2009). It is 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 cited in Olagoke, 2015). Thus, broadcast media organisations are making a concerted effort to upgrade both their personnel and equipment to fit into the new digital era.

The introduction of this new technology (digital) has changed the way media professionals now gather processes and disseminate information to the target audience. In order words, the changes observed today in the broadcast media industry are driven and determined by technology.

**Methodology**

The study adopted Cross Sectional research design. This design used in the study aids the collection of data through a survey. It allows a researcher to make inferences about a population under investigation (universe) at one point in time while trying to measure their perception of the subject matter (Ohaja, 2006).

The population of the study is three hundred and sixty (360) constituting all the broadcast staff of DRTV, Warri, DBS, Asaba, Quest 93.1 FM Ughelli and Crown F.M, Effurun. The broadcasters in DRTV are one hundred and forty ninety (149), DBS one twenty-seven (127), Quest 93.1 FM forty-nine (49) and Crown FM thirty-five (35) staff. The category of staff comprised technical and non-technical staff such as engineers, technologies, cameramen as technical and reporters, and presenters as non-technical staff. The purposive sampling technique was used for this study. One hundred and eleven (111) staff were purposively selected from government broadcast stations while seventy-five were chosen from private media stations. According to Oguonu and Anugwom (2014), the purposive sampling technique allows the investigator to select members to be included using his individual judgment as regards their suitability to the research. A 27-item questionnaire was used to generate data for the study and the data obtained were analysed using descriptive

statistics of mean and frequency count. Research question 1 was analysed with frequency count and percentage, while research questions 2 and 3 were analysed with descriptive statistics of the mean.

**Data Presentation and Analysis**

**Research Question 1: What digital equipment is available in government and private media stations?**

**Table 1:** Frequency and Percentage of the availability of digital equipment

| | | Government | | | Private | | |
|---|---|---|---|---|---|---|---|
| **S/N** | **Item Statement** | **AV** | **NA** | **TOTAL** | **AV** | **NA** | **TOTAL** |
| 1. | Digital camera | 86(77.5%) | 25(22.5%) | 111 | 49(65.3%) | 26(7.5%) | 75 |
| 2. | Capture card | 77(64.4%) | 34(30.6%) | 111 | 40(65.3%) | 26(7.5%) | 75 |
| 3. | Broadcast studio automation server | 59(53.2%) | 52(47.8%) | 111 | 57(70.0%) | 18(24.0%) | 75 |
| 4. | Visual Studio | 67(60.4%) | 44(39.3%) | 111 | 40(55.3%) | 35(46.7%) | 75 |
| 5. | Digital television monitor | 92(82.9%) | 19(17.11%) | 111 | 52(69.3%) | 23(30.7%) | 75 |
| 6. | Digital mixer | 89(80.2.%) | 22(19.8%) | 111 | 73(97.3%) | 2(2.7%) | 75 |
| 7. | Broadcast transmitter | 92(82.9%) | 19(17.11%) | 111 | 73(97.3%) | 2(2.7%) | 75 |
| 8. | Digital Microphone | 92(82.9%) | 19(17.3%) | 111 | 74(98.7%) | 1(1.3%) | 75 |
| 9. | Digital editing machine | 90(81.1%) | 21(18.9%) | 111 | 73(97.3%) | 2(2.7%) | 75 |
| 10. | Computer | 91(82.0%) | 20(18.0%) | 111 | 74(98.7%) | 1(1,3%) | 75 |
| 11. | Steaming digital receiver | 80(72.1%) | 31(27.9%) | 111 | 73(97.3%) | 2(2.7%) | 75 |

**@ 50% and above means availability of digital equipment in the broadcast stations**

**Key: AV = Available; NA = Not Available**

Table 1 shows the frequency and percentage of availability of digital equipment in government and private media stations. Results show that digital equipment is available in both government and private media stations. This is because the lowest and highest percentage of available digital equipment for government broadcast stations is 53.2% and 82. 9%, while private broadcast stations have 55.3 and 70.0% respectively which are above the set benchmark of 50% for available.

Research Question 2: How often is digital equipment used in government and private media stations?

**Table 2: Mean and frequency of the usage of digital equipment**

| | | Government | | | | | Private | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **S/N** | **Item Statement** | **VOU** | **OU** | **SU** | **NU** | $\overline{X}$ | **VOU** | **OU** | **SU** | **NU** | $\overline{X}$ |
| 12. | Digital camera | 34(136) | 23(69) | 35(70) | 19(19) | 2.65 | 33(132) | 26(72) | 8(16) | 8(8) | 3.04 |
| 13. | Capture card | 8(32) | 48(144) | 38(76) | 17(17) | 2.42 | 28(112) | 25(75) | 10(20) | 12(12) | 2.92 |
| 14. | Broadcast studio automation server | 8(32) | 38(114) | 54(108) | 11(11) | 2.39 | 26(104) | 28(84) | 6(12) | 15(15) | 2.87 |
| 15. | Virtual studio equipment | 24(96) | 54(162) | 29(58) | 4(4) | 2.88 | 36(144) | 34(102) | 2(4) | 3(3) | 3.37 |
| 16. | Digital television monitor | 38(152) | 55(165) | 3(6) | 15(15) | 3.05 | 39(156) | 24(72) | 2(4) | 10(10) | 3.23 |
| 17. | Digital mixer | 51(206) | 54(162) | 2(4) | 4(4) | 3.39 | 48(192) | 23(69) | 1(2) | 3(3) | 3.53 |
| 18. | Broadcast transmitter | 51(207) | 52(156 | 4(8) | 4(4) | 3.34 | 48(192) | 23(69) | 1(2) | 3(3) | 3.53 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ) | | | | | | | | |
| 19. | Digital Microphone | 30(120) | 62(186) | 5(10) | 14(14) | 3.19 | 41(164) | 24(72) | 1(2) | 9(9) | 3.29 |
| | Digital editing machine | 51(204) | 53(106) | 3(6) | 4(4) | 2.88 | 53(212) | 19(57) | 1(2) | 2(2) | 3.64 |
| 20. | Computer | 58(232) | 46(138) | 2(4) | 5 (5) | 3.83 | 54(216) | 19(57) | | 2(2) | 3.63 |
| 21. | Steaming digital receiver | 21(82) | 12(36) | 74(148) | 4(4) | 2.22 | 48(192) | 24(72) | | 3(3) | 3.56 |
| | Grand Mean | | | | | **32.24** | | | | | **36.61** |

**Criterion 2.50**
**Key: VOU = Very Often Use; OU= Often Use; SU= Seldom used NU= Not Use; X = Mean**

Table 2 shows the mean ratings of how often digital equipment is used in government and private media stations. Results show that digital equipment is used in government and private media stations. However, digital equipment is more often used in private media stations. This is because Item 13 has a mean rating of 2.42 for the government, which is below the criterion of 2.50, whereas private stations have a mean rating of 2.92 which is above the criterion of 2.50. Also, Item 21 has a mean rating of 2.22 for government and 3.56 for private. This implies that capture cards and digital streaming receivers are used more in private broadcast stations.

Research Question 3: What impact does digital equipment have on government and private media stations?

**Table 3: Frequency and Mean of the impact of digital equipment on broadcasting.**

| | | **Government** | | | | | **Private** | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **S/N** | **Item Statement** | **SA** | **A** | **D** | **SD** | $\overline{X}$ | **SA** | **A** | **D** | **SD** | $\overline{X}$ |
| 22. | Improved quality pictures and sounds | 30(120) | 51(153) | 21(42) | 9(9) | 2.92 | 44(176) | 28(84) | | 3(3) | 3.51 |
| 23. | Improved programme contents | 8(32) | 74(223) | 21(42) | 8(8) | 2.74 | 31(124) | 29(86) | 12(24) | 3(3) | 3.17 |
| 24. | Non-interference of frequency | 8(32) | 12(36) | 28(56) | 63(63) | 1.68 | 34(136) | 34(102) | 4(8) | 3(3) | 3.32 |
| 25. | Multiple programme options | 8(32) | 35(105) | 60(120) | 8(8) | 2.32 | 30(120) | 30(90) | 9(18) | 4(4) | 3.09 |
| 26. | Reduce the cost of maintenance | 6(24) | 25(75) | 35(70) | 45(45) | 1.93 | 37(148) | 37(111) | 8(16) | 7(7) | 3.76 |
| 27. | Reduction of the number of staff | 11(44) | 31(93) | 44(88) | 25(25) | 2.25 | 29(116) | 25(75) | 13(26) | 8(8) | 3.00 |
| | **Grand Mean** | | | | | **13.84** | | | | | **19.64** |

**Criterion 2.50**

**Key: SA = Strongly Agree; A= Agree; D= Disagree; SD = Strongly Disagree $\overline{X}$ = Mean**

Table 3. shows the impact of digital equipment on government and private media stations. Results show that; digital equipment has impacted private media stations more than government media stations. This is because item 24 has to mean rating of 1.68 for government and 3.32 for private; item 26 has a mean rating of 1.93 for government and 3.76 for private; item 27 has 2.25 for government and 2.79 for private which means that

there is an interference of frequency in government whereas there is non-interference of frequency in private media stations, there is a reduction in the cost of maintenance and reduction in the number of staff in private media stations but not in government media stations.

**Discussion of Findings**

First and foremost, the finding showed that digital equipment is available in both government and private media stations. The availability of digital equipment in the media stations as mentioned above is to properly activate digital broadcast operations. This finding is in agreement with the opinion of Inaba and Kolia (2016) that some of the requisite requirements for fostering digital broadcast operations are virtual studio equipment, a digital mixer, a digital monitor, captured card, a streaming digital receiver, a satellite and a digital transmitter.

Again, the study further showed that digital equipment was more often used in private media stations than in government media stations, though both government and private media stations used digital equipment. Thus, the quality of programmes and clarity of sounds are more in private media stations than the government media stations. This finding corresponds with the opinion of Jemine (2021) that private media stations utilise digital equipment more in comparative terms than government media stations.

Finally, the findings of the study showed that digital equipment has an impact on private media stations more than government media stations. It, therefore, means that private media stations depend more on digital equipment than government-owned media stations. However, digital equipment had a substantive impact on the broadcast operations of both private and government-owned media stations. This finding is in consonance with the opinion of Karim Saibbngh (2013) that the advent of digital technologies is meant not only a quantitative leap in the production of distribution tools by the media but also meant to benefit users in the communication circuit.

**Conclusion**

From the findings, it is very pertinent to state that digital equipment has had a substantial impact on both government and private media stations and broadcast operations generally. This is made manifest in the high quality of programmes, clarity of sounds and broader spectrum aided by technologies such as computers, the internet, digital studio, digital camera, steaming digital receivers so on and so forth.

However, there is a clear disparity between government and private media stations in the application of digital equipment. Pointedly, the private media stations used them more hence they offered consumers better services in terms of high-quality programmes, clarity of sounds and multiple programme options.

**Recommendations**

Based on the findings, the following recommendations were made.

i. Delta state government should increase internal grants to DRTV, Warri and DBS, Asaba in order to adequately fund digital broadcast operations. This is because digital equipment is capital intensive, they require huge capital investment without which broadcast operations would not meet the standards of the present digital media world.
ii. Delta state government should via the ministry of information encourage training and retraining of media personnel in order to keep them up-to-date with current knowledge and wherewithal to handle digital equipment. The fact remains that no amount of making digital equipment available in media stations would solve the problem except media personnel are trained adequately to handle them as non-equipment can operate itself.
iii. The government of Delta state should through the ministry of information monitor and ensure that its media stations more than often use digital equipment to improve services to consumers. This is because the study revealed that digital equipment is more available in the stations but were not often used compared to private media stations.

**References**

Adaramola, Z. (2017). TV digitalization: Everything you need to know/180694. Retrieved from www.daily trust.com.ng/news/business/tv-digitalisation-everything-you-need-to-know/180694.htlm. Accessed August 23, 2022.

Aginam, E. (2017). Digital switchover. Retrieved from www.dear group/latest-news/vanguard-2017-digital switchover-fresh-breath-of hope-abc-unfold-new-strategy direction. Accessed August 19, 2022.

Aihe, O. (2008 June 11). HDTV: Nigeria begins the digital broadcasting journey. Vanguard Newspaper, pp. 1, 5.

Amana, E. (2016). Interview on Nigeria Impact Assessment Report, Abuja NBC.

Araoye, M.O (2003). Research Methodology with Statistics for Health and Social Sciences. Ilorin: Nathadex Publishers.

Asemah, E. S., Nwammuo, A., Uwaoma, A.O.A. (2017). Theories and Models of Communication. Jos: Jos University Press.

Balarabe, S (2013). Digitalization of TV Broadcasting in Nigeria Review, World Academic of Science, Engineering and Technical. *Journal of Information and Communication Engineering,* Vol. 7 (10), 2.758-2777.

BAZ, E. (2012). Digital Television Broadcasting Migration: Going Digital. A publication of the broadcasting Authority of Zimbabwe.

Chioma, P.E. (2014). A Comparative Evaluation of Pre and Post Deregulation Challenges of Broadcasting in Nigeria. *Journal of Research and Development,* Vol. 1(8), 10-26.

Coleman, O.O. (2013). *Principles and Practices of Management*. Aba: Infinity publishers.

Digital, (2013). Guide to Digital Switch Over Focus African and Asia, Geneva Switzerland.

Drew, C. (2022). Technological Determinism Theory (5 Examples, Pros & Cons). Retrieved from https/helpful professor.com/technological-determinism theory.

Dokpesi, R. (2009). We are changing broadcasting in Nigeria. Retrieved from http://www.modernghana.com/movie/2594/1/we-are-changing.html.

Ebuebu. C. (2016). Interview in Nigeria DSO Impact Assessment Report, Abuja, NBC.

Griffin, (2000). *A First Look at Communication Theory* (4th ed). New York: McGraw Hill.

Gupt, S.M (2020). "What is Digitalization and Digital Transmission? Retrieved from www.Archwed. com. Accessed on 18th, May 2022.

Idachaba, A. (2018). "Digitalization of Broadcasting in Nigeria; Policy and Implementation. Abuja: Black Belt Konzult Ltd.

Ihuechu, I.P and Uwaoma, U. (2012). The Challenges of Broadcasting in Nigeria. *Journal of New Media and Mass Communication*, *Vol.* 5(8), 38-40.

Inaba, A.E &Kalia, U. (2016). *Digital Media Technology*. Owerri Continental Publishers.

Jayson, E.F.(2014). The Nigeria Switch to Digitalization.NBC Workshop on Digitalization organised by Mogul Media Limited, Lagos, December 2014.

Jemine, J. (2021). *Impact of Digital Media and Technology on the Logistics of Broadcasting Stations in Nigeria. An unpublished Dissertation presented to the Department of Mass Communication*, Delta State University, Abraka.

Kabi, A. (2012). Africast 2012 brightens Nigeria's digitalization plan. The Guardian Newspaper, pp. 4.

Karimsabbagh, (2012). Maximizing The Impact of Digitalization Paper Presented at the World Economic Forum 2012, Published In "The Global Information Technology. Retrieved from www.booz.com/media/file/boozcomaximising -the-impact-of-digitalization.pdf.Accessed 16th July 2022.

Khawaja &Nadeem (2013). Training and Development Programme and Benefits to Employee and Organization: A Conceptual study. *European Journal of business and management*, *Vol* 5(2),2222-3839.

Kawu, C. (2017 June16). Press Conference on Nigeria switchover. Retrieved from www.nbc.gov.ng/post/press-conference-on nigerias-digital-switch-over-79D4CFSD-E6EE-B580-99EZ-9320A12734A. Accessed August 17, 2022.

Limmer, C. (2017, November 16). Addressing Africa's Challenges in Digital switch. ThisDay. Retrieved from https: //www.thisdaylive.com/index.php/2022/07/16/addressing africas-challenges-in-digital-switch –over/.

Mcmillian, A. J (2016). Mediated Cognition Information Technologies and Science of Mind. A dissertation submitted to the graduate Programme in Science and Technology Studies York University Toronto, Ontario. Retrieved from https//York space library yorku.ca /xmlui/bitstream/McMillian. Accessed June 8, 2022.

Muduka, C.(2014).Demand and Resources Management in the Era of Digitalization. NBC organized Seminar, Lagos.

Njogu, W. (2016). Influence of Digital Migration on Citizens' Access to Information on Television in Kenya. The Case of Machakos Town Constituency". Unpublished Masters Dissertation from Kenya University of Nairobi, Kenya.

Nyekwere, o. (2009). Influence of new media technologies in broadcast media: A study of a television station in Port- Harcourt Metropolis. A dissertation presented to the University of Nigeria, Nsukka.

Nwanne, B.U. (2014). The new media and Human Development in Nigeria. *Journal of Mass Communication and Journalism, Vol.* 4(9), 2-6.

Obisi, S. &Rem.C. (2016). Impact of Human Capital Development on Digitalization Process in the Media Industry, *International Journal of Scientific Research in Education, Vol* 9(4), 227-237.

Obot, C. &Inwang, I. (2017).Awareness and Preparedness for Digital Broadcasting among Communication Practitioners and Educators in Uyo. *AtensJournal of Mass Media and Communication,Vol5*(2), 107-130

Ogri, E.U. & Henshaw, A (2019).Public Perception of Digital Broadcasting Nigeria: A Study of Selected Broadcast Media in Calabar Metropolis. *International Journal of Integrative Humanism, Vol.* 11 (2), 1-20.

Oguonu, C.N. & Anagwom E. E. (2014). Principles of Research in Social Sciences. Aba: Brighton Books Ltd.

Ohaja, E. (2006). *Mass Communication Research and Project report writing and Research Design*. Lagos: John Letterman Ltd.

Oji, M &Benenimibo, P. (2020). An Examination of Social Media Reporting and its Impacts Towards Promoting Social Development in Nigeria. A Study of Success Adegon's Viral Video. *Journal of Education and Social Research*, *Vol 11*(2), 189-199.

Okhakhu, M.A.A (2015). One-on-one chat on Digital Switchover and television in Nigeria.

Olalere, A.O, Oyeyinka, O.T, Lateef, O.R, Olakunle, O.R., Kenneth, T.A and Rauf, G., and Nwaolikpe, O.N. (2013). The Challenges of Digitalization on the Broadcast Media in Nigeria. *Arabian Journal of Business and Management Review,Vol.*3 (5) ,88-90.

Olagoke, O.I. (2015). Digital Broadcast and its Impact on Nigeria. International Journal and Modern Science and Technology, Vol. 2(3), 79-83.

Olawoyin, O. (2017). Nigeria's current electricity generating capacity is 6,803. Retrieved from www.premuimimtim esng.com/new/more news/240258-nigerias-current-electricity-generating-capacity-6803-MW-Fashola.html. Accessed August 21, 2022.

Omale, G.E., Ekoerafo, D.O & Essien, C.F. (2016, November). Digital Terrestrial Transmission Failure in Nigeria: Implication for Sustainable development. A paper presented to the International Conference on Information and Communication Technology and its Implication.

Onyianyi, J & Okwumba, E. O. (2019). Digital Broadcasting in Nigeria by the Eyes of its User: History of Development and current state. *Journal of World History*, *Vol.*2 (160),75-77.

Orlu-Oriu, H. C.G (2017). An Exploration of the Benefits of Migration to Digital Broadcasting. *Global Journal of Arts, Humanities and Social Science, Vol.* 5(6), 1-5.

Plum, L. (2014). *Benefits of Digital Broadcasting*: A report for the GSMA. London: PLUM Consultancy.

Ronald, J.T, Neal, S.W & Gregory, L.M. (2008). Digital System Principles and Applications. (10th E. d).India: Prentice Hall

Ufuophu-Biri, E. (2018). *The Art of News Reporting*. Lagos: Royal Birds Venture.

Ufuophu-Biri, E., & Ijeh, N.P. (2021). Television and Digital Resources of Communication and Entertainment as Correlates of Perceived Decline in Folktale Practice in Delta State, Nigeria. *Academic Journal of Interdisciplinary Studies Vol*, 10(3), 218. https://doi.org/10.36941/ajis-2021-0078.

Ukwela, F.O. (2016). The Digital Switchover Stories. A paper presented at the flag-off ceremony of the DSO project in Jos.

Wallace, O.A (2014). *Grand work of Human Resource Management*. Sapele: Winners Publisher.

William, L. (2022). Analogue vs Digital Signal: Difference between them. Retrieved from https/www/guru99.com/analogue-vs-digital.html.Access January 16, 2022.