

Public Perception of Digital Switchover of Television Broadcasting in Delta State

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ABSTRACT: *The study examines public perception of the level of digital switch over in both public and private television broadcasting in Delta State. The researcher used survey research method to determine the sample size of 400 through the appropriate statistical method to represent the population of the study. Survey research method was employed in the collection of data because it was easier to seek people's opinion using questionnaire. Data gathered from the study were analyzed and interpreted using simple percentage and tables. Findings from the research show that digitization will help improve accessibility, sharp picture quality, good and efficient programming. This research has revealed that not all broadcast stations in Delta State are not fully digitized; this is because of some constraints that militate against the media house such as lack of adequate funds to run the broadcast station properly. Privately owned media stations in Delta State whose major problems are lack of adequate funds/ finance according to findings, should be provided with adequate funds through the Federal annual budget allocation. Government should provide the broadcast station its full monthly subvention to fully operate maximally like other mass media organizations, because of the essential services it renders to the public.*

KEYWORDS: public perception, switch over, broadcasting, digitalization, binary language

INTRODUCTION

The dramatic changes brought about by information technology are having a significant impact on the daily lives of people around the world. Digitalization medium has become an absolute necessity for businesses to gain a competitive advantage in this age of globalisation. The International

Telecommunication Union (ITU) set June 17, 2015, deadline date for the entire world to switchover from the current mode of broadcasting to the Netra modern digital terrestrial broadcasting after its congress in Geneva, Switzerland in 2006. Following a meeting of stakeholders in the broadcast industry in Abuja where forum under scored the need for Nigeria to embrace the new technology, so that the country would not be turned into a dumping ground for obsolete analogue equipment, June 3, 2008, was the set date for Nigeria to commenced digital broadcasting. However, the country officially started the digitization of its broadcast industry in December 2007, following late President Umaru Musa Yar'Adua's approval, directing the National Broadcasting Commission (NBC), the industry's regulator to set in motion and pilot the programme towards the target date (Adeniyi 2019). Digital communication as an advanced form of information transfer in which messages are converted into a series of 1s and 0s (binary digits) and sent over a channel to the receiver has grown immeasurably. It moved from monochrome (black and white) to colour transmission Kombol, (2018). Television which supports the system of sending and receiving pictures and sound by means of electronic signals transmitted through wires and optical fibers or by electromagnetic radiation is usually broadcast from a central source, a television station, to reception devices such as television sets in homes or relay stations such as those used by cable television service providers. (Microsoft Encarta, 2016)

From previous studies, it is established that digitalization has grown exponentially in both applications and usage due to its unique qualities of flexibility, interactivity, and personalisation. It is clear also that major changes brought about by information technology are having massive relevance to the daily lives of people around the world. What remains unclear and not highlighted by those studies is the audience perception of digital switchover on television broadcasting in Delta State, Nigeria. It is also not explicit if digital switchover has triggered more actions from the broadcast audience in Delta State and if it has any influence on individuals in the same manner as it did in the studies. This study examines public perception of the digital switchover on television broadcasting in public and private owned broadcast stations in Delta State. It is expected that through interrogation, the study is able to establish the socio-economic benefits associated with the digital switchover of television broadcasting in Delta State.

Objectives of the Study

- i. to examine audience perception of digital switchover on television broadcasting in Delta State
- ii. to establish the socio-economic benefits of digitalization of television broadcasting in Delta State.

Research Questions

The research question involved in this study was as follows: -

- i. what is the audience perception of digital switchover on television broadcasting in Delta State?

- ii. what are the socio-economic benefits of digitalization of television broadcasting in Delta State?

The word, digital, denotes “a process or device that operates by processing information that is supplied and stored in the form of a series of binary digits” (Robinson 2019: p.373). Corroborating, Okpanachi(2018) believes that digital television broadcasting is the pure digital transmission with improved sound quality of broadcasting devoid of static, hiss, pops and fades, that offers data display capabilities on receivers and offers opportunity for multicasting. This suggests broadcasting with multiple high-quality channels on each frequency.

Digitization a process through which information, whether relayed or through sound, text, voice, or image is converted into digital, binary language for computer use, makes it possible for the conversion of information from different channels through one channel, and to reduce the risks of distortion (Okorie, 2018). Thus, the use of digital language facilitates the coverage through computer, telecommunication, office technologies and assorted audio-visual consumer electronics. Their integration, in turn, allows information to be handled at higher speed, with more flexibility, improved reliability and lower cost.

Through digitization, the capacity of communication channels is greatly expanded, more scope for consumer choice, and more possibilities for interactive system (Kambol, 2019). Furthermore, digitization considerably improves the quality of voice and video transmission and, economic efficiency is enhanced because conversion to digital forms of storage, retrieval and editing save time and labour. For high quality video, for example, images can be digitally compressed and then transmitted over satellites at 56,000 bits per second as a computer file. This digital data can be stored on disc system until it is played back at the original speed. Since digital compression and storage system are light weight, the news technology can be especially useful in news gathering.

Digital compression techniques in television offers important role in economic advantages for satellite broadcasting. (Ekeh: 2019). More television channels can be put on fewer transponders, which implies considerable savings. Digital compression techniques will also increase opportunities for projects like video conferencing and paid television. The principal characteristic of digital technologies is its pervasiveness. They are everywhere, at home from kitchen to living room, in the office from electronic badge to computers among other places.

Analogue television did not really begin as an industry until the development of the cathode-ray tube (CRT), which uses a steered electron beam to “write” lines of electrons across a phosphor coated surface (Wikipedia, 2020). The electron beam could be swept across the screen much faster than any mechanical disc system, allowing for more closely spaced scan lines and much higher image resolution, while slow fade phosphors removed image flicker effects for less maintenance required of an all-electronic system compared to a spinning disc system.

To review quickly here are the basics of analogue television transmission

- (a) A video camera takes a picture of a scene at a frame rate of 30 frames per second.
- (b) The camera rasterizes the scene. That is the camera turns the picture into rows of individual dots called pixels. Each pixel is assigned a colour and intensity.
- (c) The rows of pixels are combined with synchronization signals, called horizontal sync and vertical sync signals, so that the electronics inside a TV set, will know how to display the rows of pixels (Wikipedia, 2020).

This final signal, containing the colour and intensity of each pixel is a set of rows, along with horizontal and vertical sync signals which is called composite video signal sound is separate. These video signals can be used in the following ways: Broadcast as radio waves when antenna is attached to TV set and pick up local stations free. Receiving broadcast television from TV stations. Recording them with a VCR. Transmitting them through a cable Television system along with hundreds of other composite signals. When a composite video signal is broadcast over the airwaves by a TV station, it happens on a specific frequency. The composite video signal is transmitted as an AM signal and the sound as FM signal on these channels. When the VCR wants to display its signal on a normal analogue TV, it takes the composite video signal and the sound signal off the tape and then modulates those signals. A cable box or satellite box does the same thing. The set-top box receives a digital signal from the satellite or cable; the box then converts that signal to an analogue signal and sends it to your analogue TV.

Digitization of video signals according to Baran (2020, p.227) “reduces their sizes; therefore, more information can be carried over phone wires and stored.” Corroborating, Hanson (2019, p.241) states: Just as sound recording has moved to digital formats with CDs and MP3 files, so is television in the process of going from analogue technology of Farnsworth and Zworykin to the computerized digital technology. There are two distinct digital formats. High-definition television (HDTV) is a wide screen format and features an ultra-high-resolution picture with superior sound. The other digital format is standard digital television, TV, which will make it possible to broadcast up to six channels on the same frequency space that now carries only one channel. The above submissions represent the attributes of the digital concepts. They also form opinion for the advantageous need of the process of digitization. That the digital technology is paramount in today’s broadcasting is the basis why Dominick (2019, p.233) says “the traditional broadcast television industry is in a state of change”. Also, Dominick (2019, p.157) states that “hoping to capitalize on the public’s increasing awareness of highdefinition television (HDTV) the radio industry is introducing HD radio, a digital service that generally improves the signal quality of terrestrial radio stations.” HD radio can enhance FM station to produce sound as good as CD. It can also make AM station sounds as good as current FM station. In addition, the signals are static free. The notion here is that digital signals in broadcasting are superb, that they can be compressed to make one single radio station to broadcast more than one programme at a time.

Digital television (DTV) offers many advantages. The pictures are clearer with better sound quality. It also enhances the “rectangle-ness” of the screen (16:9 aspect ratios) unlike the traditional TV, which is square (4:3 aspect ratios). Furthermore, the possibility of transmitting on a super-resolution high-definition TV is enhanced by digitization of high production signals. As a footnote to the power of digital technology, Rodman (2019, p.236) submits that “audience fragmentation has encouraged the development of digitalization of high broadcast production, which can increase format selections...” In traditional analogue video production, an analogue device represents the sound on a carrier gadget. Such an analogue form carries static and is easily corrupted. In digital production, transmitted sounds are assigned numbers (digits) that take up less air space than analogue. Digital signals can also result in crisp, clear signal. Observers have it that the difference between traditional analogue broadcasting and digital broadcasting resembles the disparity existing between AM and FM signal qualities. These outstanding qualities of digital broadcasting prompted the world through its regulator, the ITU, to make moves towards digitizing all broadcast outfits in the world. A pact was reached; and Nigerian was, and still is, a part of the deal to digitize.

Having noted the intricacies of digital technology as it relates to broadcasting, a brief incursion into the historical background of the process will suffice here. According to Mishkind (2017, p.2), experiments on High-Definition Television started in the late 1940s but the first digital broadcasts were transmitted in November 1, 1998. The transmission saw about 42 TV stations around the United States air live digital signals of the launch of the space shuttle discovery (Hanson 2016, p.242; Encarta 2018, p.1). This motivation led to other directives. As Mishkind (2019, p.4) puts it, “in its desire to generate more money by auctioning spectrum space, Congress directed the FCC to move all television to digital transmissions, effective February 17, 2009. Stores were forbidden to sell TVs without an ATSC tuner in it after July 2005. The date was later moved to June 12, 2009. As it stands now, the United States has fully transited to digital broadcasting. In Germany, digital audio broadcasting (DAB) first started to develop in 1981 (Wiki 2010, p. 2). But the BBC started broadcasting digital radio in 1995 making it the first organization to build a digital network in the UK.

The digital trend is being observed by many countries because none wants to be left behind. The bid to transit from analogue to digital necessitated the different deadlines chosen by different countries. According to Ocholi (2020, p.1), “Nigeria officially started the digitization of its broadcast industry in December 2007, following President Yar’Adua’s approval”. However, the digitization programme commenced in Abuja on June 3, 2008 in response to a meeting of stakeholders in the industry. To enhance the achievement of the target, the Presidential Action Committee (PAC) on the transition from analogue to digital broadcasting was set up on October 13, 2008 (Udeorah, 2021, p.7).

This committee set June 17, 2002, as the switchover date in Nigeria. In this regard, most of the broadcasting stations in the country started making efforts to meet the deadline. It is worth y of note that many countries responded to the 2015/2020 deadlines fixed by International Telecommunication Union, ITU, (Aihe; 2018, p.2). It is believed that after all the countries must have observed their individual deadlines, the broadcasting audience would start enjoying quality signals. They would also have the options of multiple channels from a particular station.

Digitization of video signals reduces their sizes; therefore, more information can be carried over phone wires and stored (Robinson, 2021). Just as sound recording has moved to digital formats with DVDS and CDs and MP3, MP4 files, so is television in the process of going from analogue technology of Farnsworth and Zworykin to the computerized digital technology called Digital Television (DTV). DTV refers to the complete digitization of the TV signal from transmission to reception. By transmitting TV pictures and sounds as data bits and compressing them, a digital broadcaster can carry more information than is currently possible with analogue broadcast technology. A DTV Broadcasting is an alternative method of broadcasting the images and sounds that appear on TV screen. Rather than being broadcast as a continuous analogue signal, the signals are sent as discrete bits of information. Digital TV broadcasting improves picture quality and eliminates problems such as ghosting and snowing. Digital TV is also capable of providing new features and services such as high-definition TV broadcasting (HDTV) programmes, interactive services, mobile reception, widescreen pictures, surround sound audios, multiple viewing angles, multi-channeling, closed-captioning and electronic programme guides. Digital TV broadcasting may be transmitted via radio-communications (i.e., terrestrial), satellite, cable, or broadband network. High-definition television (HDTV) is a wide screen format and features an ultra-clear high-resolution picture with superior sound. The other digital format is standard digital television, TV, which will make it possible to broadcast up to six channels on the same frequency space that now carries only one channel. (Baran, 2019). DTTB broadcasts land-based (terrestrial) signals using coaxial cable at the subscriber end to connect the network to the TV receiver. Fiber optic and/or microwave links may be used between the studio and the broadcast station, or between the broadcast station and local community networks. The video, audio and other service data are compressed/multiplexed to form elementary transport streams (TS) e.g. MPEG-2 Transport Stream. The transport stream consists of Transport Packets that are 188 bytes in length. It is passed into the Forward Error Correction (FEC) encoder that takes preventive measures to protect the transport streams from errors caused by noise and interference in the transmission channel. The modulator then converts the FEC protected transport packets into digital symbols that are suitable for transmission in the terrestrial channels. This involves the use of Quadrature Amplitude Modulation (QAM) (which has the advantage of increasing the available bandwidth by placing two independent double sideband suppressed carrier signals in the same spectrum as one ordinary double sideband suppressed carrier signal),and ISDB-T systems (a technical standard for digital television broadcast used in Southern America), or Pulse Amplitude Modulation (PAM) and Vestigial Sideband Modulation (VSB) in ATSC-T (Advanced Television Systems Committee

standard for all terrestrial air channels). ATSC and DVB-T specify the modulation used for over-the-air digital television; by comparison, QAM is the modulation method used for cable TV and VSB for broadcast TV. The final stage is the upper converter, which converts the modulated digital signal into the appropriate RF channel. The sequence of operations in the receiver side is a reverse order of the operations in the transmitter side.

A survey research method was adopted to enable the researcher draw inference on variables under study. Ohaja (2019) described the survey research method to be very common and prominently used in gathering primary research data, which helps the researcher harvest information on attitudes, opinions, or motivations, by serving the respondents with closed or semi-closed ended questions.

Pritha (2021) explained that a population is the entire group that you want to draw conclusions about. The choice of the design was informed by the objectives of the study as outlined in chapter one. It intends to study the influence of digital switch over on broadcast production in Delta State.

The population of the study are residents of Delta State. In accordance with the records available at the Delta Population Centre (2022), the population is 6,862,134.

Sample size refers to a group of subjects that are selected from the general population and are considered a representative of the real population for that specific study. Thus, the sample size for this study was 400. This is a way to select a part or portion from a sampling frame or population to represent the entire population usually when the population is large. Taro Yamane formula was used to determine sample size for this research as explain below.

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

Where n = Sample size
N = Population of the study
e = Error Margin (5%)

$$n = \frac{6,862,134}{1 + 6,862,134 (0.05)^2}$$

$$n = \frac{6,862,134}{1 + 6,862,134 (0.0025)}$$

$$n = \frac{6,862,134}{1 + 17,155.335}$$

$$n = \frac{6,862,134}{17,156.335}$$

$$n = 399.9766 \text{ i.e } 400$$

Sampling Techniques

The research adopted non-probability sampling technique. By extension specifically, quota sampling was used to select respondents across Delta State.

Instrument for data collection in research are means through which the researcher gathers data, including observation, checklist, interview guide, tests, and questionnaire etc (Degu & Yigzaw, 2016; Kumar, 2018). To this study questionnaire was used to collect data from the sampled population of this study. The questionnaire was structured and designed to enable the respondents answer the research questions appropriately. The questionnaire comprised two sections. Section A was embedded with respondents' biodata to elicit respondents' demographic details while Section B was concerned with questions relating to the research questions. The face validity of this instrument was ensured by content experts and the supervisor, who through the process of vetting the ambiguity and structural make-up of the instrument; validate the use of the research instrument.

Finally, tables were used, and tabulation was however done according to the relevant questions raised in the questionnaire. Inferences were drawn on the basis of the respondents' answers.

Table: 1 Audience perception of digital switchover on television broadcasting in Delta State

<i>S/N</i>	<i>Description of statement</i>		<i>SA</i> (5)	<i>A</i> (4)	<i>U</i> (3)	<i>D</i> (2)	<i>SD</i> (1)	<i>Total</i> <i>l</i>	<i>Mean</i> <i>Score</i>	<i>ST. D</i>	<i>Deci</i> <i>sion</i>
1	Audience enjoyed television broadcasting in Delta State	No of Response	150	210	10	10	10	1650	3.30		Accepted
		Total Number	750	840	30	20	10				
2	digital broadcasting exists in private and public stations in Delta State	No of Response	280	100	5	3	2	1823	3.64		Accepted
		Total Number	1400	400	15	6	2				
3	digital switchover has improved television stations performance in Delta State	No of Response	60	300	6	16	8	1558	3.11		Accepted
		Total Number	300	1200	18	32	8				
4		No of Response	90	280	2	8	10	1602	3.20		

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5	Televisions Stations in Delta State has clear visual and sound	Total Number	450	1120	6	16	10	1588	3.17	Accepted
	digital switchover aid broadcast stations quality	No of Response	70	300	4	10	6			
	broadcasting in Delta State	Total Number	350	1200	12	20	6			

The data in Table 1 shows the mean and standard deviation of respondents on audience perception of digital switchover on television broadcasting in Delta State. Given the 2.50 benchmark for acceptance, items 1-5 had mean above the benchmark indicating that there is audience perception of digital switchover on television broadcasting in Delta State.

In summary, respondents agreed that Audience enjoyed television broadcasting in Delta State with mean score of 3.30. The respondents also agreed that digital broadcasting exist in private and public stations in Delta State with mean score of 3.64. The respondents agreed that digital switchover has improved television stations performance in Delta State with a mean score of 3.11. Respondents agreed that televisions stations in Delta State have clear visual and sound with mean score of 3.20. And respondents agreed that digital switchover aid broadcast stations quality broadcasting in Delta State with a mean score of 3.17. The implication of this analysis is that audience welcome digital switchover in Delta State.

Table: 2 Socioeconomic benefits associated with digitization to the broadcasting industry

S/ N	DESCRIPTION OF STATEMENT		SA (5)	A (4)	U (3)	D (2)	SD (1)	TOT AL	MEA N SCO RE	ST. D	DECISI ON
16	Digitalization helps to reduce unemployment rate in the broadcast industry	No of Response	90	200	20	50	30	1390	2.78		Accepted
		Total Number	450	800	60	50	30				
17	Digitalization has improved employment rate in Delta State	No of Response	240	60	30	40	20	1630	3.26		Accepted
		Total Number	1200	240	90	80	20				
18	Digitalization is hindering socioeconomic benefits in Delta State	No of Response	20	20	10	40	300	590	1.18		Negative
		Total Number	100	80	30	80	300				
19	Digitalization Bring Socioeconomic Benefit to Broadcast Industry in Delta State	No of Response	55	300	10	15	10	1875	3.75		Accepted
		Total Number	275	1200	360	30	10				
20	Socioeconomic benefit is associated with digitalization in Delta State	No of Response	80	220	30	55	25	1500	3.00		Accepted
		Total Number	400	880	90	110	25				

Source: Field Work by Author 2023

The data in Table 2 showed the mean and standard deviation of respondents on socioeconomic benefits associated with digitization to the broadcasting industry. Given the 2.50 benchmark for acceptance, items 16-20 had mean above the benchmark indicating that there is socioeconomic benefits associated with digitization to the broadcasting industry. In summary, respondents agreed that digitalization help to reduce unemployment rate in the broadcast industry with mean score of 2.78. The respondents also agreed that digitalization has improved employment rate in Delta State with mean score of 3.26. Respondents disagreed that digitalization is hindering socioeconomic

benefits in Delta State with mean score of 1.18. And respondents agreed that digitalization bring socioeconomic benefit to broadcast industry in Delta State with a mean score of 3.75. The respondents agreed that socioeconomic benefit is associated with digitalization in Delta State with a mean score of 3.00. The implication of this analysis is that audience had identified socioeconomic benefits associated with digital switchover in Delta State.

Findings from the data analyzed in Table 2 showed the mean and standard deviation of respondents on audience perception of digital switchover on television broadcasting in Delta State. Given the 2.50 benchmark for acceptance, items 1-5 had mean above the benchmark indicating that there is audience perception of digital switchover on television broadcasting in Delta State.

In summary, respondents agreed that Audience enjoyed television broadcasting in Delta State with mean score of 3.30. The respondents also agreed that digital broadcasting exist in private and public stations in Delta State with mean score of 3.64. The respondents agreed that digital switchover has improved television stations performance in Delta State with a mean score of 3.11. Respondents agreed that televisions stations in Delta State have clear visual and sound with mean score of 3.20. And respondents agreed that digital switchover aid broadcast stations quality broadcasting in Delta State with a mean score of 3.17. It can be inferred from the above that a significant majority of the population in Delta State rated the digital switchover on television broadcasting high.

Findings from the data analyzed in Table 4.2.4 showed the mean and standard deviation of respondents on socioeconomic benefits associated with digitization to the broadcasting industry. Given the 2.50 benchmark for acceptance, items 16-20 had mean above the benchmark indicating that there is socioeconomic benefits associated with digitization to the broadcasting industry.

In summary, respondents agreed that digitalization help to reduce unemployment rate in the broadcast industry with mean score of 2.78. The respondents also agreed that digitalization has improved employment rate in Delta State with mean score of 3.26. Respondents disagreed that digitalization is hindering socioeconomic benefits in Delta State with mean score of 1.18. And respondents agreed that digitalization bring socioeconomic benefit to broadcast industry in Delta State with a mean score of 3.75. The respondents agreed that socioeconomic benefit is associated with digitalization in Delta State with a mean score of 3.00. The implication of this analysis is that audience had identified socioeconomic benefits associated with digital switchover in Delta State. From the above respondents, It was proven that there are socioeconomic benefits associated with digitalization to the broadcasting industry in Delta State.

Findings from the data analyzed in Table 2 showed the mean and standard deviation of respondents on benefits of digital switchover on television to broadcast audience in Delta State. Given the 2.50 benchmark for acceptance, items 21-25 had mean above the benchmark indicating that there are

benefits of digital switchover on television to broadcast audience in Delta State.

Respondents agreed that digital switchover has improved television stations audience in the rural and urban populace in Delta State with mean score of 3.11. The respondents also agreed that audience received clear sound and quality visual due to television digital switchover in Delta State with mean score of 3.09. Respondents agreed that audience stay more closely to television due to digitalization enhancement in Delta State with mean score of 2.88. And respondents agreed that Delta State broadcast audience benefit more from digital switchover than analogue broadcasting with a mean score of 3.04. The respondents agreed that digital switchover on television has eliminate analogue broadcasting in Delta State with a mean score of 2.99. It can be agreed that digital switchover on television to broadcast audience in Delta State.

Idoko (2017) explored the importance of digital television transition. She observed that the television of the near future will resemble a movie screen more closely than a TV set; the picture will be sharper and wider. The TV may soon become more than just an appearance on which to watch a game or a show. Instead, it may serve as the display, for a variety of entertainment and information devices. He also pointed out that there will be wide range distribution of information and content can turn broadcast into an almost universal access platform. According to the researcher, the Nigeria society is bound to encounter some of the following challenges in her journey to digital broadcasting. They include, lack of trained personnel, poverty, ignorance, corruption. This research and the current study are related in the sense that both studies are focused on the digitization of the broadcasting media in Nigeria. The reviewed study failed to specify its scope of study while the current study defines its scope to be Delta State.

Ifeanyichukwu (2019) observed that some of the dividends that modern society is expected to reap from broadcasting digitization are: efficient use of available spectrum which will allow more channels, thus bringing more choice to the viewer, high quality audio (sound) and video (images), digital television signals can carry extra information such as electronic programme guide that can provide more traditional programme information. The researcher indicated the challenges which could be economic, political, and technological which affect the entire gamut of stakeholders. The research therefore is relevant to the current study because it answers one of the research questions posed in the current study as whether digital broadcasting service in the country has enhanced broadcast production in Delta State. The scope of the reviewed study is too wide and not effectively executed while the present study is limited to a particular location which is Delta State, to exhaustively execute the research and generate data.

Adeniyi (2019), sought to know the implications of the digital transition to the Nigerian society, he established that, previously everyone relied on radio spectrum for TV transmission, but this had inherent restriction posed by the analog transmission. Adjacent analog transmission was found to

be subject to interference, forcing the regulatory bodies to leave space between channel and only allocate a small percentage of available spectrums for transmission, to ensure high

Quality transmission and reception throughout the regions served. Adeniyi (2019) asserts that, the international Telecommunication union's position on migration was informed by the development in telecommunication technologies, which enable a more efficient use of radio frequency spectrum and improved quality picture and audio. Previously everyone relied on radio spectrum for TV transmission, but this had inherent restriction posed by the analog transmission. Adjacent analog transmission was found to be subject to interference, forcing the regulatory bodies to leave space between channel and only allocate a small percentage of available spectrums for transmission, to ensure high quality transmission and reception throughout the regions served. All these disadvantages have been surpassed with the arrival of the digital epoch, which gives better clarity and quality of signal and spectrum efficiency. Digitized TV signals are clearer and stronger in their audio and video output. Since digital technology has opened a world of possibilities for broadcasting, a huge spectrum will be available for radio and television broadcast in the country. As a result, more frequencies or wavelengths will be available broadcasting as TV sets would now do much more than receive broadcast signals. Thus, Nigerians that do not want to be left behind in the new technological development have two options. The first is for them to buy a digital compliant television set to enable them enjoy the benefits of the new technology, or even with the analog

Television, one can buy a "set-top-box" which is a digital analog signal converter. He also established that some of the challenges rise from finances to purchase the digital equipment before 2012 and the analog switch will render a non-digital television obsolete. In relation to this study, "The influence of digital switch over on broadcast production in Delta State", Adeniyi's conclusion paved a way for further study into what this new wave has in store for the media in every geo-political zone in Nigeria, including the South South Zone, Delta State.

Leke (2010) sought to find out the challenges of the migration to digital television in Nigerian broadcast stations. His paper took a critical look at Transition from analogue to digital broadcasting in Nigeria, benefits of digital broadcasting, how to switch to DTV, features of digital broadcasting, and advantages of the change. The paper that anchored on the Diffusion and Technological Determinism theory, further pointed out that Nigeria has the capacity to meet the 2012 deadline for the switchover from analogue to digital television.

In a statement on 17 June 2008 in Abuja at a sensitization luncheon held by the commission for media editors on the issue of the digitization of the broadcast media following the presidential approval for the 2012 date, Engineer Bolarinwa emphasized that contrary to impression in some quarters, the country is ahead of African countries in the march towards the 2012 switch over date, as well as in the state-of-the-art industry.

Leke (2020) argued that, the advantages of the evolving digital television, citing Kombol (2011) is a broadcasting technology that offers viewers sharper pictures and enhanced sound quality compared to existing analogue television by transmitting large quantities of data in compact form, just like in personal computers, compact disc, and the internet. The paper concludes and recommends that the Nigerian Government through NBC should provide a conducive environment for this transition among other. In relation to this present study, Leke (2020) pointed out the two sides of the challenges involved in the migration, which is that of the Broadcasters and their audiences.

Aluechia.(2020) asserted in a paper that the improvement of technology in the society has made it possible that analogue technological system of broadcasting is trying to find its way out of the broadcasting industry. The ushering in of digitization in the broadcasting industry has demonstrated clearly that analogue has no place in the broadcast industry. His paper examined the implication of digital broadcasting station. The paper also looked at digital broadcasting as the practice of using digital data rather than analogue waveform to carry broadcast signals. Three research questions are raised to give the paper direction. The paper adopted content analysis of related text, articles, and internet materials to arrive at findings. The paper is anchored on the theory of diffusion and technological determinism, which stress the development of technology with the diffusion of communication. It also distinguished analogue from digital broadcasting. It looked at the modalities of transition from analogue to digital.

In conclusion, Aluechia (2020) discovered that in achieving good work you must spend, as there is a popular adage that “better soup na money” which in English means that for a good quality soup to be made, enough money is required. There is a new technology more efficiently to transmitting quality sound and picture by turning them into computerized data. The implication of benefit of digital broadcasting includes quality content production, good reception, possibilities of huge spectrum for broadcasting access to internet less bandwidth quality signals supporting different picture format and aspect ratio, robust to noise, easy to scramble signals etc. With digital broadcasting in the system threat to the old analogue equipment is intensified by rendering some obsolete. The use of converter box and the low economic power of both some broadcast station and individual to transit conveniently is a big problem. Based on the above findings, one would agree that digital broadcasting is a solution to analogue problem. He further went on to say that Nigerians should start embracing this technology to make it possible to meet deadline of 2012, which is a date for Nigerian transition to digital broadcasting. As Nigeria seeks to join the rest of the world by moving from analogues to digital broadcasting, the NMB would have a major role in providing the enabling environment to achieve the set objective in 2012.

From this research work and having analyzed all the data collected, it was discovered that the global drive for digitization is crucial, because digital format of broadcasting is of higher quality

than analogue; it enhances sound and picture quality and makes much channel viewing easily accessible. The introductions of digital television represent the most significant innovation since the advent of television itself. Digital broadcast delivery, in addition to multiplying the number of available channels, will also transform the very nature of the television medium by making it interactive. This research has revealed that not all broadcast stations in Delta State are not fully digitized; this is because of some constraints that militate against the media house such as lack of adequate funds to run the broadcast station properly.

Recommendations

One may be right to express fear of NBC action towards broadcast stations in Delta State by not meeting up to the deadline given by the commission that supposed to take effect on full digitalization of all media stations in Nigeria.

Some broadcasting stations in Delta State are faced with myriads of challenges ranging from the use of obsolete equipment, lack of adequate funds, political constraints and government interference, breakdown of operational equipment, among others. However, the study recommended that:

- Privately owned media stations in Delta State whose major problems are lack of adequate funding, according to the findings, should be provided with adequate funds through the Federal annual budget allocation.
- Government should provide the broadcast station its full monthly subvention to fully operate maximally like other mass media organizations, because of the essential services it renders to the public.
- Government should minimize its interference in the station in order to enable the station run smoothly and generate funds to operate maximally. Although it is the case of, “he who pays the piper calls the tune”. It is no secret that the greater percentage of the problems faced by the government owned broadcast outfits is government constant unfair interference, accounting for the reasons private owned broadcast firms in the country thrive to the detriment of the government owned broadcasting organizations.
- The prevailing analogues communication and engineering equipment should be replaced with digital communication gadgets such as digital satellite, electronic newsgathering equipment (ENG), procurement of Teleprompters, news and programme processing equipment, digital editing studios among others. It is believed that the provision of some of these needed facilities will help broadcast stations in Delta State performance better.
- Finally, the researcher also suggest that the management of broadcasting station should pay proper management functions such as planning, organizing, coordinating, employing qualified personnel, and wages etc to bear-on the overall administration of the broadcast stations, to optimally boost its productivity. Until these foregoing remedial measures are met, the myriad

of problems facing Broadcasting station will remain, thereby leaving the organization in digital divide

REFERENCE

- Aihe, O. (2018). HDTV: Nigeria begins digital broadcast journey. Vanguard. Retrieved on 28/07/10 from <http://www.odilinet.com/news/source/june/11/315.htm>
- Amana, E. (2019) Transition from analogue to digital terrestrial television broadcasting in Nigeria, the journey so far. presented at Enugu, workshop on digital switch over, Abuja, 5th August
- Amana, E. (2016) Interview in Nigeria DSO impact assessment report, Abuja, NBC
- Baran, S.J (2020) Introduction to mass communication, media literacy and culture (6th Ed.), New York: 2010, McGraw-Hill.
- Bunshak, T. (2019), Digital broadcasting is now. (2016), Referenced from NBC News: 8.
- DIGITAG (2019) Guide to digital switch over: focus Africa and Asia. Geneva Switzerland
- Dokpesi, R. (2019). "We are changing broadcasting in Nigeria. Retrieved on 27/07/10 from <http://www.modernghana.com/movie/2594/1/we-are-changing.html>
- Dominick, J.R. (2019). The dynamics of mass communication: Media in the digital age (10th ed.). New York: McGraw-Hill.
- Ebuebu, C. (2016) Interview in Nigeria DSO Impact Assessment Report. Abuja, NBC
- Ekeh, D. (2019). Nigeria television at 50: Challenge of digitization. Retrieved on 27/7/10, from http://www.tvnews.com/articles_comment/ekehdesmond.html
- Encarta (2018). 1998: Television: First digital broadcasts are transmitted. Government White Paper on Transition from analogue to digital broadcasting (2012)
- Hanson, R.E. (2017). Mass communication: Living in a media world. New York: McGraw-Hill. Ibulubo, T.G. (2018). Nigeria to switch to digital broadcasting. Retrieved on 24/7/10 from http://www.africanews.com/site/nigeria_to_switch
- Hanson, R.E. (2020), Mass communication: Living in a media world. New York: 2005, McGraw-Hill. International Journal of Engineering Research in Africa Vol. 15 139
- Ibulubo, T.G. (2019), Nigeria to switch to digital broadcasting, (2018) International Telecommunications Union, ITU Guidelines for the transition from analogue to digital broadcasting, (2012). www.itu.int
- Maduka, C. (2021) Demands and resources management in the era of digitization, at an NBC organized seminar, Lagos
- Mbah, E. (2016) The future of Television in Nigeria: An overview of what's coming. Paper Presented at Sheraton Hotel Abuja, Workshop on Digital Switch Over Sept 10.
- Mediaator (2019) Developing a High Level Framework for DSO, Abuja, NBC
- Microsoft Encarta Encyclopaedia

- Mishkind, B.(2020). The television history. Retrieved on 03/08/10 from <http://www.oldradio.com/current/bc.tv.htm>
- Naranen, P. (2020) European regulation of digital television, in Broadcasting and Convergence: New Articulation of Public Service Remit. Nordic Centre for Media and Communication Research
- Ocholi, D. (2020), A new dawn in the broadcast industry Newswatch
- Ohuabunwa, G. (2017) Interview in Nigeria DSO impact assessment report. Abuja, NBC
- Okpanachi, S.O.M. (2019), Radio development: The case of Radio Nigeria, Paper Presented at the 2008 Commonwealth Broadcasting Association Conference; Nassau, Bahamas.
- Okpanachi,S.O.M.(2008).Radio development: The case of Radio Nigeria. Paper Presented at the 2008 Commonwealth Broadcasting Association Conference, Nassau, Bahamas.
- Oshodin, D. (2019). Nigeria's digital migration a mirage? retrieved on 27/07/10 from <http://www.bizcommunity.com/articles/157/66/39687.html> policy framework for digital terrestrial television services in Nigeria Policy (2019)
- Robinson, M. (Ed.) (2020). New York: McGraw-Hill. Robinson, M., Chambers 21st century dictionary; (rev. Ed.). Edinburgh: Chambers Harap Publishers Ltd. 2004, 1654pp.
- Rodman, G. (2018), Mass media in a changing world: history, industry, controversy, New York: 2006 McGraw-Hill. The Constitution of the Federal Republic of Nigeria (1999) The Nigeria Broadcasting Code (2012)
- Udeorah, B. (2018), Setting the roadmap to digitization, Referenced from NBC News: 11
- Uzor, B. (2018). Experts draw out roadmap for digital migration in Nigeria. Retrieved on 27/07/10 from <http://www.businessdayonline.com/index.php>
- VISALAT (2016) Baseline Report Recommendations for creative industries in Nigeria, Abuja. Nigeria
- Wiki, (2018). Digital broadcasting history. Retrieved on 03/08/2010 from <http://www.wiki.yacapaca.com/index.php/digital>
- Wallop, P. (2019) Guidelines for the transition from analogue to digital broadcasting. ITU. Geneva Switzerland.