

Attitude of Broadcast Journalists towards Digital Broadcasting in Abia State, Nigeria

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Abstract

This study was carried out to investigate the attitudes of broadcast journalists towards digital broadcasting in Abia State. The major objective was to determine the attitude of broadcast journalists in Abia State toward the digitalisation process. Thus, the diffusion of innovation theory and technological determinism theory were used as framework to study a population of 201 journalists; being registered journalists in all the broadcast stations in Abia State. The survey research design was used to conduct a census study, considering the manageable number of participants. Face-to-face interview and questionnaire administration were used to elicit and collect data from the broadcast journalists. It was found that majority of the journalists embraced the digital process by exhibiting positive attitudes towards the transition from analogue to digital broadcasting. It was also found that lack of awareness on the part of the general public as well as poor financing on the part of government and stakeholders constituted the major challenges to the transition process. According to the journalists, total digitalisation may result in unemployment and low patronage from the general public which are likely to arise because of envisaged inability to acquire digital tools. It was concluded that broadcast journalists in Abia State have positive attitudinal dispositions towards digital broadcasting. It is recommended that journalists should be trained to acquire skills in preparation for optimised digital broadcasting. Also, awareness should be created among the general public about the process and its implications.

Keywords: Broadcasting, Digitalisation, Attitude, Journalists, Digital Transition

Introduction

Digital broadcasting is the technological evolution and advancement from analogue terrestrial television, which broadcasts land based (terrestrial) signals. The Nigerian broadcasting industry is currently undergoing a quiet revolution which involves the on-going transition from analogue to digital technology. Many countries of the world have recognised the benefits of digital broadcasting while making efforts to shift from analogue broadcasting to digital broadcasting, and Nigeria is not left behind (Onuh, 2010). The transition from analogue to digital broadcasting involves mainly changing the format of signal transmission as well as making sure that members of the public buy high-definition television sets and get rid of standard definition television sets (Ihechu & Uche, 2012).

The concept of Digital Switchover (DSO) is a technological advancement in the field of broadcasting where broadcast signal generation, distribution and reception are digitalised. Contrary to the analogue mode of broadcasting, DSO facilitates generation and reception of quality image and sound clarity as well as allows numerous digital channels on single bandwidth as against the single-channel reception in analogue broadcasting (Ridwanullah, 2021).

Globally, many countries have switched from analogue to digital broadcasting with an impressive consequence of high-definition and quality signal reception and output. Without the DSO approved set-up boxes, television signals cannot be received. Those residing within digital switchover states can only receive television signal digitally. Reception on low-quality cable antenna shall belong to the past (Adegboyega, 2021). The Digital Switchover is no doubt a welcome development. According to Akpan (2020) broadcast journalists understand and appreciate what digital broadcasting is, the advantages it has over analogue broadcasting, the benefits it bestows on the broadcast industry and the necessary adaptation to digital operations.

Broadcast journalists engage in several activities in their day-to-day discharge of duties to gather, process and disseminate information. Digital broadcasting has provided the opportunity to develop positive attitudes towards content production and dissemination. Nwanne (2014) had observed that 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. Nevertheless, the benefits of digital media necessitate the need for attitudinal changes by journalists to blend with the offering of the new technology and improve work environment and output.

The advantages of digital broadcasting far exceed those of the analogue means of broadcasting. The presentation of programmes would be well improved by the time digital broadcasting set in. These are true in terms of clarity and quality of signals and spectrum efficiency. In contrast to analogue, digitalisation has made it possible for different type of content (video, audio, text) to be stored in the same format and delivered through a wide variety of technologies (computer, mobile phone, television etc.). Ocholi (2009) argues that:

Since 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 for television stations in the country. It will also afford the industry opportunities for interactive broadcasting as the television sets would now do much more than receive signals (p.13).

The journey towards Digital Television (DIT) broadcasting started in Nigeria on June 17, 2006. The agreement to switch over, known as the GE-06 agreement, was signed at the International Telecommunication Union (ITU), the UN's telecom technology arm in Geneva, Switzerland. The agreement set up the plan for digital terrestrial television that required member countries of the ITU to complete transition from analogue to digital transmission by June 17, 2015 (ITU, 2015). Based on the above, the Nigerian government announced a plan to digitalise the nation's analogue television broadcast signal in line with a global deadline established by the International Telecommunication Union (ITU). In a bid to achieve the migration to digital broadcasting, the Federal Government of Nigeria in 2007 approved the transition but was forced to shift the date from June 17, 2012 to June 17, 2015. The Nigeria government, however, inaugurated a 14-man team tagged Digital Team in December 2012. This was done in order to meet up with the new migration date but failed again due to lack of funding. It is disheartening and embarrassing to note that after two self-set deadlines, the journey towards the digital switchover in Nigeria has so far been slow and seem so laborious (Onwubiko, 2019). Currently, most television stations in Nigeria broadcast analogue signal, especially government-owned broadcast houses. Nevertheless, in recent years, there have been a steadily growing number of satellite firms,

including the Digital Satellite Television (DSTV) pay service, NTA Star Times, a joint venture between the state-controlled Nigerian Television Authority (NTA) and Star TV, a Chinese firm and others.

With the need for adaptation to technological demands, journalists in Nigeria and all over the world engage in training and retraining to meet up with the trend in digital broadcasting. Almost every radio and television station in the country has acquired one form of digital equipment or the other, including portable digital transmitters. This has enabled them to adopt what Ihechu (2014) calls *analogital* mode of broadcast production. This implies that the broadcasters combine both analogue and digital equipment. It is believed that the country would experience total transmission and reception of digital signals soon. Therefore, the broadcast journalists are expected to embrace digital technology so as to be in tune with modern broadcasting techniques. They are also urged to employ advocacy reporting to prompt government and stakeholders to hasten the transition process for optimum digitalisation (Ogemdi *et al*, 2017). Nevertheless, there seems to be an improvement in the transition pace after a long delay (Adegboyega, 2021).

As the nation migrates gradually to digital broadcasting, the digital divide in the nation must be addressed by tackling poverty, illiteracy, infrastructural deficit, among other indicators of the digital divide for the digital switch over (DSO) to make a meaningful impact. It becomes pertinent, therefore, to investigate key players in the industry – broadcast station managers, broadcast journalists and producers – and their attitude towards the development.

Since the era of the ITU's agreement for switchover from analogue to digital broadcasting following the Geneva Conference, many nations of the world have continuously made efforts to go digital and Nigeria is not left behind in the trend though with lots of challenges and failures in the past. Ihechu and Uche (2012) had identified the challenges of digitalisation of broadcasting in Nigeria to include unrealistic deadlines, funding, manpower, power supply and knowledge gap. Despite these problems, public and private broadcast stations have continued to struggle to position and place themselves in the digital broadcasting roadmap.

Part of the efforts include procurement of digital equipment; training and retraining of workers, including journalists; and following trends on current developments in the broadcasting industry (Ogemdi, *et al*, 2017). In the light of the above, for the digital broadcasting to come and stay, it would be appropriate for the journalists to develop positive attitudes towards the new technological development. Studies show that countries categorised as developing countries such

as India, South Africa, and some South American countries have embraced digital broadcasting in full force; and that journalists in those countries supported and accepted the entire process of digitalisation (Onwubiko, 2019). Also, Nwanne (2014) submits that Nigerian journalist present lacklustre attitude toward new technology adoption. There is need to understand the current stance of journalists in relation to the transition to digital broadcasting. It would, therefore, be important to investigate the situation in our clime, regarding journalists and the transition to digital broadcasting. Hence, what is the attitude of broadcast journalists in Abia State towards digital broadcasting?

Objectives of the Study

The aim of this study is to evaluate the attitudes of broadcast journalists towards digital broadcasting in Abia State. The objectives are to:

- i. ascertain the dispositions of Abia State broadcast journalists towards digital broadcasting;
- ii. examine the extent Abia State broadcast journalists are interested in digitalisation;
- iii. identify the ways migration to digital broadcasting would affect the broadcast journalists' work in Abia State;
- iv. examine broadcast journalists' perception of the challenges of migration to digital broadcasting in Abia State; and
- v. find out from broadcast journalists the various ways total migration to digital broadcasting can be enhanced in Abia State.

The Journey towards Digital Broadcasting

Like many other countries, Nigeria commenced her migration process shortly after the Geneva 2006 treaty. Pursuant to digitisation goals, President Umaru Yar'Adua gave approval for the commencement of the digitisation of the broadcast industry in December, 2007 (Ocholi, 2009). Sequel to the meeting of stakeholders in the industry, the digitisation programme began in earnest in Abuja, Nigeria's capital on 3rd June, 2008 (Ihechu & Uche, 2012). In furtherance of the presidential approval of the programme, the Presidential Advisory Committee (PAC) on the transition from analogue to digital broadcasting was inaugurated on 31st October, 2008 to fashion out the modalities that will ensure the broadcast industry in particular and the nation in general, reaped the gains of digitisation (Ihechu & Uche, 2012; Olalere *et al*, 2013).

The multi-sectoral nature of the digitisation of the broadcast industry necessitated membership of the committee being drawn from several sectors (Ojalere *et al*, 2013). Nevertheless, characteristic of unnecessary bureaucracy in government circles in Nigeria, the report was not made public until 2012 which meant that 2012 deadline was no longer feasible (Okonji, 2017). Having failed to meet the 2012 deadline, Okonji (2017) explains that the federal government in December 2012 inaugurated a 14-man team tagged “Digiteam Nigeria”, with Mr. Edward Amana as the Chairman to drive the process of digital migration.

Again, due to lack of political will, the Digiteam did not receive the required funding to enable it actualise the task (Okonji, 2017). It was not a surprise that on 17th June, 2015, Nigeria, like many other African countries, failed to transit to digital broadcasting (Nigerian Pilot, 2017). As result, ITU had to set June 2017 deadline for Nigeria to switch-off analogue broadcasting (Okonji, 2017). President Buhari’s administration had to assure that the nation will not miss the 2017 deadline and had commenced pilot launch of digital broadcasting in Jos and Abuja (Okonji, 2017). After a long back and forth, the initiative has materialised with the successful launching of DSO in a number of states. The National Broadcasting Commission assured that the development will aid digital television penetration and high-quality service (Adegboyega, 2021).

The Concept of Digitalisation

Digitalisation is the process of converting analogue information into digital format. The materials to be converted could be letters, manuscripts, books, photographs, maps, audio recordings, microforms, motion pictures, ephemera, etc. 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, 2004, p.34). According to Picard (2011), digitisation is defined as the process of changing content production, storage, distribution and consumption from an analogue to a digital base. These bases changes from physical form to binary electronic form. Media digitisation has been in existence for five decades, first appearing in the production of newspapers, magazines and books and then moving to television and audio production. Its use reduced the costs and time of production and provided enhanced storage capabilities for original content.

In digitalisation process, information is usually converted into a digital (i.e. computer readable) format, in which the information is organised into bits. The result is the representation of an object, image, sound, document or signal by generating a series of number that describe a

discrete set of its points or samples, the result is called digital representation or more specifically a digital image, for the object and digital form, for the signal. In modern practice, the digitalized data is in the form of binary numbers, which facilitate the computer processing and other operations, but strictly speaking, digitalising simply means the conversion of analogue source material into a numerical format (Picard, 2011).

The goal of digitisation is improved access to materials. To that end, most digitized materials become searchable via databases on the Internet. In order for the materials to be digitised, they must be converted using a method to capture the material digitally (e.g., scanning, digital photography, digital recording) without altering the information that the material contains. That means that the digital representation contains the same information/data as the analogue representation.

Digitalisation is of crucial importance to data processing storage and transmission because it allows information of all kinds in all formats to be carried with the same efficiency and also intermingled, unlike analogue data which typically suffers some loss of quality each time it is copied or transmitted, digital data can be propagated indefinitely with absolutely no degradation. This is why it is a preferred way of preserving information for many organisations around the world (Onwubiko, 2019).

In terrestrial analogue transmission (broadcasting), the condition to accessing programmes provided the area had signal coverage, was simply acquiring the necessary receiving equipment: antenna, TV/ radio, etc. Information has passed through an early phase marked by broadcasting to a phase that features the convergence of personal computers, telephone lines, cable TV, electronic metals, and communication satellites (Ihechu, 2014).

Digital transmission offers an advantage over analogue transmission with regards to the acceptable signal-to-noise ratio (SNR) at the optical receiver. Analogue and digital transmission are different means of transmitting information to any audience. In encoding transmission signals there are three predominant methods: Amplitude modulation, Frequency modulation, Digital encoding technique (Picard, 2011).

Digital Broadcasting as a National Development Agenda

Digital broadcasting has a key role to play in the socio-economic and cultural development of any nation. It is of fundamental importance in the emerging information society and knowledge-

based economy in which access to information and knowledge is regarded as a prerequisite to economic and societal development. A nation can take advantage of the opportunity product by the process of migrating from analogue to digital broadcasting to accelerate the country's achievements (Robbinson, 2004). Possible opportunities provided by digital broadcasting towards national development are as follows:

1. Increasing access to information and services: The ICT sector is one of the sectors identified as having the potential to contribute to increasing access to information and services through reducing cost of doing business, small business development and contributing to creating a macro-economic climate, conducive for economic growth (Hassan, 2015).
2. Building National Identity and social cohesion: digital broadcasting creates opportunities for the development, use and wide dissemination of the local content which in turn will advance efficient communication and contribute to the integration of people from different ethnic background thus contributing to nation building (Okpanachi, 2008).
3. Radio frequency spectrum as a national public resource: radio frequency spectrum is a national resource and the government has a responsibility to use such a resource in the public interest by prioritising it for developmental objectives. Digital broadcasting enables utilisation of the scarce frequency spectrum far more efficiently than analogue. One of the largest benefits of digital broadcasting to any nation is the freeing up of valuable radio frequency. Therefore, competition should be promoted within the limits of available spectrum in order to ensure a smooth digital broadcasting in the country and to provide a multiplicity of sustainable service to benefit both the public and broadcasters (Ebimini, 2015).

Government therefore regards greater information and communication flows within communities and regions as important tools in the war against poverty; as well as expedited developmental efforts.

Digital Broadcasting and Attitude of Journalists: Empirical Review

Ogah (2009) sought to know the implications of the digital transition for the Nigerian society and found out primarily that the arrival of digital broadcasting in this part of the continent

constitutes a threat to the old analogue equipment by rendering them obsolete. The use of the converter box and the low economic power of some broadcast stations and individuals to transit conveniently is a problem. The study employed survey research design to study Benue residents' opinions regarding the process of digitalisation in the country. The findings showed that there was inadequate push to sensitise the public about the implications of digitalisation. The author recommended that the government through the NBC should play the support role for the members of the public who may not be fully aware of this change or may not be able to afford it.

Ogah (2009) study is related to the present study in that the arrival of digital broadcasting system could have been a threat to most journalists who may find it difficult to abandon the old analogue broadcasting. Therefore, the attitude of journalists would be ascertained to understand the best approach to address the issues around the facilitation of an all-inclusive transition process.

Also, Adeniyi (2009), studied the implications and challenges of the digital transition to the Nigerian society and found that, previously everyone relied on radio spectrum for TV transmission, but this had inherent restriction posed by the analogue transmission. Adjacent analogue transmission were found to be subject to interference, forcing the regulatory bodies to level up space between channels 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 digitisation which gives better clarity and quality of signal and spectrum efficiency.

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 to enjoy the benefits of the new technology, or even with the analogue television, one can use "set-top-box" which is a digital analogue signal converter. Adeniyi (2009) also established that some

of the challenges arose from inadequate finances to purchase digital equipment. The study recommended that Nigerians should move along with the new trend of technology like other developing countries. In relation to the present study, the reactionary attitudes of journalists in Abia State towards the benefits of digital broadcasting would be established.

Tabu (2016) studied consumer attitude towards analogue to digital migration of television broadcasting technologies. Data was collected using structured questionnaire which was administered to Kenyan male and female adults who were accessed in households through door to door, drop and pick method. Strata comprised of constituencies within Nairobi County which were, according to the 2009 constituency geographical divisions, Kasarani, Kamukunji, Dagoretti, Westlands, Embakassi, Starehe, Langata and Makadara. Data was analysed using descriptive statistics and correlation analysis.

The study found that respondents were aware of migration from analogue to digital television technology and also demonstrated that respondents had a higher favourability towards attributes that digital technology has over analogue technology. However, most respondents indicated that they were being held back by constraints such as affordability and implementation. The researcher recommended that similar studies should be carried out in other counties and consumers need to be provided with more information about digital technology. Best practices should also be emulated from countries that have switched off analogue technology in the region.

The recommendation that similar studies be conducted in other countries spurred the present study. Therefore, the way the study under review found the attitude of product consumers toward migration to digital technology in Kenya, so also would this study find out the attitude of journalists to transition to digital broadcasting in Nigeria.

Ogemdi *et al* (2017) assessed the level of awareness of digital migration process among TV consumers in Enugu metropolis. The study drew on the theoretical insights of Diffusion of Innovation theory to explain the diffusion path of digital migration process. The study found a low level of awareness of digital migration process among residents of Enugu metropolis. Discontenting with the current TV viewing experience, the respondents showed favourable disposition to digital migration and expressed willingness to explore new TV viewing experience it presents.

The research established the potential of viability for the adoption of digital broadcasting among residents of Enugu metropolis as respondents acknowledged that favourable testimonial on impressive functioning of digital broadcasting from a reliable source would further encourage them to embrace the technology. Given the centrality of awareness to the diffusion process, the authors recommended well-designed sensitisation campaigns to educate Nigerians on digital migration process for a successful digital roll-out. This reviewed work explained a major index to measure attitude among broadcast journalists because it is their duty to sensitise the populace; which to a reasonable extent would be indicative of attitude.

Benedict (2017) investigated the challenges of digital television in Nigeria using the survey method. The study observed the monstrous issue of digital divide, which is a superiority contest between those who possess strategic competitive information with those with mere superficial and escapist knowledge of digitalisation. Equally dangerous is the issue of media hegemony, which concentrates media in the hands of few who are industry drivers in the broadcasting telecommunication hardware manufacturing sector. The study explained the dominance of technology following the digital broadcasting system which is beyond the scope of most broadcast journalists. The author recommended that a level playing field is required for all

broadcasters to be armed. This factor may go a long way to affect the attitudes of these journalists. That is why the present study is necessary to determine the attitudinal dispositions of journalists toward digital broadcasting.

Theoretical Framework

Two important theories were used as framework for this study; namely, the Technological Determinism Theory and Diffusion of Innovation Theory (DOI). Marshall McLuhan's theory of Technological Determinism was propounded in 1962. McLuhan (1964, p.9) says that "the medium is the message" because it is the medium that shapes and controls the scale and form of human association." McLuhan sees the media as the extension of man because new technologies lead to new perceptions and attitudes. Therefore, the available media technology determines how information is processed and eventually perceived – the import of technological determinism.

According to Littlejohn and Foss (2008), the theory postulates that media technology shapes how we as individuals in the society think, feel and act and how our society operates as we move from one technological age to another. The above position implies that technology influenced how messages were produced to reflect a communication culture of a particular era.

Throwing more light on the above, Hanson and Maxcy (1996) observe: "The products of modern science are not in themselves good or bad; it is the way they are used that determines their value" (p.131) Therefore, the attitude of broadcast journalists towards digital technology determines the impact on message contents of the programmes produced with them.

As McQuail (2005) has noted: "Each new medium transcends the boundaries of experience reached by earlier media and contributes to further change" (p. 127). The impact of this submission is that the coming of digital technology would definitely change the ways broadcast contents are produced and transmitted by journalists.

Diffusion of Innovation theory relates to the process that occurs as people adopt a new idea, product or service (Kaminski, 2011). Al-Jabri & Sohail (2012) noted that DOI aims at providing explanations on how, why and at what rate novel ideas and technology diffuse through cultures. The process starts with the introduction of the innovation to the population and ends with its full adoption (Mapi, Dalvit & Terzoli, 2008). According to Rogers (1995), there are five categories of adopters of an innovation, namely innovators, early adopters, early majority, late

majority and laggards. Rogers (1995) also notes there are five stages of adoption process. They include awareness, interest, evaluation, trial and adoption stages.

1. Awareness: Mapi *et al.* (2008) noted that this stage is concerned with the introduction of innovation to a person who does not possess ample information; neither sees the need to get more information nor considers buying or using the product or service.
2. Interest: One decides to seek more information about the innovation but does not really know how or if it can be useful in their own life. Mapi *et al.* (2008) explains that this is when the individual decides to get more information to guide his choice.
3. Evaluation: This relates to the individual making decisions about the innovation. In this stage, Mapi *et al.* (2008) observed that the individual enquires about the use of the product and the difference it will make. If the innovation appears to be useful to their life, they will try it out.
4. Trial stage: At this stage, the product or innovation is used to a limited extent (Mapi *et al.*, 2008).
5. Adoption Stage: Here, the decision to adopt a product/innovation is informed by the information gathered in the interest and evaluation stages as well as the outcome of the trial stage (Mapi *et al.*, 2008).

This study assesses the attitudes of broadcast journalists towards digital broadcasting in Abia State. Therefore, finding out the level of awareness and attitude towards digitalisation is particularly important because awareness prefaces other innovation adoption stages. Establishing the level of awareness and attitudes of broadcast journalists towards digital broadcasting process in Abia State will provide a useful insight into the possible rate of adoption when analogue switch off completely happens.

Methods

This study adopted the survey method of research. According to Asika (2004) cited in Ihechu (2021), the survey method of research focuses on population or the universe from which data are collected for study and analysed. In the words of Okoro (2001) “survey method of research is useful in the measurement of public opinion, attitude and orientation which are dominant among a large population at a particular period” (p.13). In the light of the above definitions, survey

research method was considered most appropriate for this study that dealt with the attitude of broadcast journalists towards digital broadcasting in Abia State.

The population for the study was 201; being the total number of broadcast journalists in Abia State. The population comprised registered journalists from BCA-Radio/TV, Umuahia (N = 60); NTA Umuahia (N = 48); Buzz FM, Aba (N = 12); Rhema FM, Aba (N = 10); Flo FM, Umuahia (N = 11); Real FM, Aba (N = 9); Magic FM, Aba (N = 13); Family Love FM, Umuahia (N = 18); Pace Setter FM, Umuahia (N = 12); and Vision Africa FM, Umuahia (N = 8). Since the population was small, there was no need for sampling. Therefore, the researcher carried a census by studying all the registered journalists in all radio and television stations in Abia State. Consequently, the sample size was 201.

The main instruments for data collection for the study were the questionnaire and the interview schedule. The two instruments complimented each other because, while the questionnaire provided quantitative data, the interview schedule was used to generate qualitative data that were used to buttress findings from the quantitative method. Copies of the questionnaire were administered to the broadcast journalists in all the broadcast stations in Abia State; while the interview schedule was used to engage the station managers in question and answer sessions on issues that arose from findings made through the data generated from the questionnaire.

The items on the questionnaire were rated on a 5-point scale. The data were analysed by determining the mean scores. Thus, scores of 3-points and above were deemed significant and accepted. Further, thematic data were generated from the qualitative method (interview); and explanation building technique was used to analyse the data.

Results

The data presentations are done according to the objectives and research questions of this study. Only 195 copies of questionnaire out of 201 were found valid for analysis. This made up 97% of the total administered and was representative enough for analysis.

RQ 1: What are the dispositions of Abia State journalists towards digital broadcasting?

In order to answer this research question, three measurement statements were stated and the data collected are presented below:

Table 1: Positive Disposition of Broadcast Journalists towards Digital Broadcasting

Rating	Scores (x)	Frequency (f)	%	Mean score (\bar{x})
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Strongly Agree	5	84	43	3.99>3.0 = 80% Significant
Agree	4	41	21	
Neutral	3	58	30	
Disagree	2	8	4	
Strongly Disagree	1	4	2	
Total	N = 5	195	100	

The data in the table above shows an average rating of 3.99 on a scale of five points. This result was considered significant and indicated that there was 80% positive disposition towards digital broadcasting. Majority of the journalists who were positively disposed agreed that they cannot be left behind when other developing countries are advancing in technology. Majority of the interview participants concurred with this finding.

Table 2: Digital Broadcasting will increase revenue generation and bring more development

Rating	Scores (x)	Frequency (f)	%	Mean score (xi)
Strongly Agree	5	97	50	4.0>3.0 = 80% Significant
Agree	4	29	15	
Neutral	3	41	21	
Disagree	2	16	8	
Strongly Disagree	1	12	6	
Total	N = 5	195	100	

On a 5-point scale, the table above shows an average rating of 4.0 implying 80% agreement level to the statement. This significant result showed that majority of the journalists believed that digital broadcasting would increase revenue and bring more development.

Table 3: Digital Broadcasting would enhance my work

Rating	Scores (x)	Frequency (f)	%	Mean Score (xi)
Strongly Agree	5	45	23	3.6>3.0 = 72% Significant
Agree	4	82	42	
Neutral	3	39	20	
Disagree	2	10	5	
Strongly Disagree	1	19	10	
Total	N = 5	195	100	

To know whether broadcasting would enhance journalists' work, the respondents were subjected to a rating scale on 5-point. Table 4 shows that there was an average rating of 3.6 indicating that there was 72% agreement with the statement. The result shows the journalists believe that when total digitalisation comes, there would be enhancement of their work with this

new technology. Also, majority of the interviewees agreed that digital broadcasting would enhance and facilitate broadcast production and dissemination.

RQ 2: To what extent are Abia State journalists interested in digital broadcasting?

Two measurement statements were stated, and the responses obtained are presented in the tables below:

Table 4: Interest in complete digital broadcasting

Rating	Scores (x)	Frequency (f)	%	Mean score (xi)
Strongly Agree	5	80	41	3.86 > 3.0 = 77% Significant
Agree	4	49	25	
Neutral	3	19	10	
Disagree	2	31	16	
Strongly Disagree	1	16	8	
Total	N = 5	195	100	

The data in the table above show that, on a scale of five, there was a mean score of 3.86. The result was deemed significant because it shows that there a 77% level of interest existed. In other words, the journalists were enthusiastic about digital broadcasting and are ready to embrace the technology.

Table 5: Attitudes and perception of broadcast journalists have limited their interest in digital broadcasting

Rating	Scores (x)	Frequency (f)	%	Mean score (xi)
Strongly Agree	5	33	9	1.66 < 3.0 = 33% Rejected
Agree	4	63	17	
Neutral	3	67	18	
Disagree	2	97	26	
Strongly Disagree	1	112	30	
Total	N = 5	372	100	

From the table above, there was an average score of 1.66 out of five points. This fell below the 3-point significant level. It was therefore considered insignificant and could be said that the level of limited interest was low. This confirmed the previous finding (Table 4) that journalists have interest in digital broadcasting.

RQ 3: In what ways would migration to digital broadcasting affect broadcast journalists' work in Abia State?

Three measurement statements were presented to be rated for this research question.

Table 6: Complete digital broadcasting will lead to unemployment for many broadcast journalists in Abia State

Rating	Scores (x)	Frequency (f)	%	Mean score (xi)
Strongly Agree	5	78	40	3.92 > 3.0
Agree	4	64	33	

Neutral	3	25	13	= 78% Significant
Disagree	2	14	7	
Strongly Disagree	1	14	7	
Total		195	100	

With an average rating of 3.92, table 7 shows 78% agreement by the respondents that digital broadcasting would cause unemployment. The result is significant and corresponds with the submission by the interview participants that some journalists who are unable to adapt to digital technology would be out of job when total digital broadcasting takes place.

Table 7: Digital Broadcasting will redefine the practice of journalism

Rating	Scores (x)	Frequency (f)	%	Mean score (xi)
Strongly Agree	5	68	35	3.72>3.0 = 74% Significant
Agree	4	43	22	
Neutral	3	55	28	
Disagree	2	21	11	
Strongly Disagree	1	8	4	
Total	N = 5	195	100	

The result of analysis showed that the majority of the respondents believe that digital broadcasting will change the way broadcast journalism is practiced and as such, it would give some journalists the task of coping with the new technology. With a mean score of 3.72, there was a 74% agreement with the statement; and this was considered significant.

Table 8: Cost of purchasing digital tools will affect the finances of journalists

Rating	Scores (x)	Frequency (f)	%	Mean score (xi)
Strongly Agree	5	64	33	3.57>3.0 = 71% Significant
Agree	4	43	22	
Neutral	3	45	23	
Disagree	2	25	13	
Strongly Disagree	1	18	9	
Total	N = 5	195	100	

The respondents believed cost implications of acquiring digital tools would affect the practice of journalism. This submission was based on the 3.57 mean score which was considered significant on a 5-point scale. This further implied that there was a 71% agreement with the statement; and corresponds with the submission of interviewees that if financial resources are committed to acquiring digital tools, some other areas and needs could suffer.

RQ 4: What are the broadcast journalists' perceptions of the challenges of migration to digital broadcasting in Abia State?

Four measurement statements were rated for this research question and the data are presented in the tables below.

Table 9: Finance is a challenge to digital migration

Rating	Scores (x)	Frequency (f)	%	Mean score (xi)
Strongly Agree	5	59	30	3.83>3.0 = 76% Significant
Agree	4	47	24	
Neutral	3	31	16	
Disagree	2	29	15	
Strongly Disagree	1	29	15	
Total	N = 5	195	100	

With an average score of 3.83 on a 5-point scale, it would be said that journalists saw financing the migration to digital broadcasting as a major challenge to the process. As such, this implies that, there was 76% agreement with the statement. This tallied with the submission of the interview participants that finance was a major setback to the transition process.

Table 10: Technological requirement is a challenge to digital broadcasting

Rating	Scores (x)	Frequency (f)	%	Mean score (xi)
Strongly Agree	5	47	24	3.38>3.0 = 67% Significant
Agree	4	52	27	
Neutral	3	41	21	
Disagree	2	39	20	
Strongly Disagree	1	16	8	
Total	N = 5	195	100	

Technological requirement is a challenge to digital broadcasting. This is because, with 3.38 mean score on a 5-point scale, the result was considered significant and implied that there was 67% agreement with the statement.

Table 11: Power supply is a challenge to digital broadcasting

Rating	Scores (x)	Frequency (f)	%	Mean score (xi)
Strongly Agree	5	57	29	3.41>3.0 = 68% Significant
Agree	4	47	24	
Neutral	3	39	20	
Disagree	2	25	13	
Strongly Disagree	1	27	14	
Total	N = 5	195	100	

With a mean score of 3.41, Table 12 shows a 68% agreement that power supply is one of the problems that digital broadcasting will face. In other words, journalists agree that power supply will be a major challenge that would affect digital broadcasting in Abia State.

Table 12: Unawareness among the general public affects migration to digital broadcasting

Rating	Scores (x)	Frequency (f)	%	Mean score (xi)
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Strongly Agree	5	24	15	3.40>3.0 = 68% Significant
Agree	4	39	25	
Neutral	3	78	50	
Disagree	2	8	5	
Strongly Disagree	1	8	5	
Total	N = 5	157	100	

On a 5-point scale, Table 13 shows that there was an average score of 3.4 which shows that there was 68% agreement that unawareness about migration to digital broadcasting among the public poses a threat to the entire process of digitalisation. This result was in line with the opinions of the station managers (Table 14) that there is need for sensitisation of the masses so as to make them follow the trend.

RQ 5: In what ways can total migration to digital broadcasting be enhanced in Abia State?

One measurement statement was stated in order to answer the research question. The data obtained are presented below.

Table 13: Positive attitude among stakeholders will enhance the complete implementation of digital broadcasting in Abia State

Rating	Scores (x)	Frequency (f)	%	Mean score (xi)
Strongly Agree	5	78	40	4.2>3.0 = 84% Significant
Agree	4	97	50	
Neutral	2	10	5	
Disagree	2	10	5	
Strongly Disagree	1	0	0	
Total	N = 5	195	100	

The data in table 14 show the favourable rating that positive attitude toward the migration to digital broadcasting will enhance the process so as to enable broadcast development in the state under study. Thus, there was an average rating of 4.2 on a 5- point scale and this shows that the journalists had 84% agreement with the notion.

Table 14: Broadcast Station managers' Perceptions – Qualitative Data

S/N	Themes	Summarised Responses
1.	Journalists' disposition to digital broadcasting	Journalists exhibited eagerness to adopt the digital broadcasting. They also worked hard to adapt to the new demands.
2.	Journalists' interest in digital broadcasting	There are high expectations among the journalists. They look forward to complete digital broadcasting. They also engage in self-sponsorship to acquire digital skills with the hope of reaping the benefits.

3.	Impact of digital broadcasting on Journalists' work	Digital broadcasting would ease information processing and transmission. Journalists would acquire new tools and new skills. Those who cannot cope would likely lose their jobs. More training would require more spending. The audience needs to be sensitised too.
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Discussion

The findings of this study as presented and analysed above are discussed using the research questions as a guide, and in consideration of the reviewed literature and theories. Table 1 shows 80% agreement that journalists are positively disposed towards digital broadcasting in Abia State. Also, Table 2 shows that there was an 80% agreement that journalists in Abia State see digital broadcasting as having the potential to increase revenue generation and enhance development in the industry. Further, Table 3 indicates that majority of the journalists believe that digital broadcasting would positively enhance the way they work. The station managers, during interview, made contributions that are in line with these results. For example, one of the managers said:

From all indications, I can say the journalists are keen on embracing the new era of digital broadcasting. They work hard to learn about it and I believe ... ehh... the approach to work would change. And ... eh... the change must be positive. I have no doubt about that. – Mr B.

From the results above, the first research question would be answered thus: *Broadcast journalists in Abia State were positively disposed to migration to digital broadcasting.* This finding means that broadcast journalists are willing and ready to welcome the implementation of digital broadcasting in the state. They view this new technology as one which can generate more income and bring development more than the traditional analogue means of broadcasting. In other words, the journalists were willing to adopt the technological innovation of digital broadcasting.

The finding is in tandem with the recommendation of Alaligbo (2009) that broadcasters should accept the offerings of digital technology to improve on their work experience and add value to broadcast signals. The finding also supports the position of Okpanachi (2008) that broadcast stations could increase revenue because according to Dokpesi (2008) digital broadcasting enhances cost effectiveness. In his words, “In the master control where we used to have about 12 people working, it’s only one person doing that now” (p.4).

By considering the above positions, it would not be out of place for journalists to develop positive attitude toward the process. That is why they engage in training and retraining in the area of new technology (Ogemdi *et al.*, 2017); so as not to be left out when total digitalisation materialises (Oko, 2019). Nevertheless, positive dispositions could arise from the considerations of the benefits which include ease of work environment and conditions as well as increased revenue.

Table 4 shows that the journalists have 74% interest in digital broadcasting. Interest in something or lack of it begets positive or negative attitude. Here, the level of interest promises positive attitude toward digital broadcasting. Also, the data in Table 5 show that there was 33% rating of the statement that journalists have limited interest in digital broadcasting. In fact, this result supports the one on Table 4. Moreover, the interview participants agreed that journalists are highly interested in the migration to digital broadcasting. As one of the participants puts it:

Yes, yes, yes... we are looking forward to the day this thing would come. Every journalist is expectant, especially the young ones. Some even sponsor themselves to acquire knowledge on new ways of doing things ... you see, that's a mark of interest in the process. I believe it's like that in other stations too. – Mr T.

Based on the results above, it would be apt to answer the second research question by saying that: *Broadcast journalists in Abia State are highly interested in digital broadcasting.* They are however interested in digital broadcasting because it is expected that the system would provide more business than the analogue system. For example, it believed that digital broadcasting would provide the opportunity for multiple transmissions; as one station could transmit on more than one channel at a time (Baran, 2010). Digital broadcasting is very much cost effective as much money is not spent compared to the analogue system that makes use of bulky equipment (Dominick, 2009).

The interest of journalists in digital broadcasting is encapsulated in their show of readiness to embrace it. That is why they constantly follow trends in the process of the transition to digital broadcasting (Ogemdi *et al.*, 2017). They also seek information about digital broadcasting situations in other countries (Ihechu & Uche, 2012). These have, over the years, kept their interest in the system glowing while they wait for complete switchover.

Table 6 shows that there was 78% agreement that the journalists believe that migration to digital broadcasting could cause unemployment because digital broadcasting requires few hands;

since one person can perform several functions. Also, Table 7 shows a 74% agreement that journalists believe that the way work is done will be redefined by digital broadcasting. Further, Table 8 indicates 71% agreement that cost adapting to digital broadcasting will affect the finances of journalists in Abia State; because, the equipment and tools would consume a lot, while the training for the handling of the tools have their cost implications. These results were supported by submissions by interviewees. For example, one of them had this to say:

My brother, it is true that digital technology will facilitate broadcasting as well as make work easy for us; it has some effects that some of us may not welcome. Ehh ... yes... hmm... I'm certain some people will lose their jobs... those that can't cope will leave on their own...others looking for job will not have the opportunity because there may not be too many vacancies. That's the way I see it. – Ms J.

Another participant said:

You know Nigeria now... we buy our tools to work for employers. It means we should be prepared to spend more money. The training allowance I received the other time could not even take me to the venue. I had to make it up. I pray they step up their welfare package when the time comes. What about the public. How will they cope? With this high cost of living and bad economy; I wonder how many people that will receive signals... I just pray. – Mrs Y.

Following the results as discussed above, the answer to research question three would be: *According to the perceptions of journalists in Abia State, migration to digital broadcasting will affect journalists' work experience by:*

- i. Displacing some journalists and causing unemployment;*
- ii. Redefining the functions of journalists; and*
- iii. Depleting the finances of journalists.*

It is believed that due to this technological advancement, there will be increase in unemployment as more tasks will be carried out with the use of sophisticated machines and equipment. It is believed that as a result of technological advancement with digital broadcasting, more skills will be required than the analogue system. These findings are in line with the position of Ihechu & Uche, (2012) that “as the complex and fragile equipment are coming in, there is need for matching manpower” (p. 41). However, some of the existing personnel may be adversely affected too. Those who may not be able to understand the flexibility and, or, cope with the fragility of the new technology may be thrown into the labour market. That will eventually add to the burden of unemployment that has bedevilled the nation in recent times.

The finding lends support to the finding of Hassan (2015) that many broadcast audiences in Nigeria lack the needed financial muscle to comply with the demands of the transition to digital broadcasting. In a study related to the thematic finding from interview, Ebimini (2015) found that majority of residents in rural communities in Nigeria cannot afford the digital facilities to enable them watch digital contents from digital television.

Tables 9, 10, 11 and 12 contain data that show broadcast journalists' perception of the challenges of migration to digital broadcasting in Abia State; and they include financing digital technology; technological requirement; power supply issues and unawareness of the public about expectations of digital broadcasting. These findings provide the answer to the fourth research question.

The huge capital for start-up and cost of maintenance of digital broadcasting is not within the reach of most broadcast stations in the state and this poses a lot of challenges to the implementation of a complete digital broadcasting in the state. Finance is a major challenge to digital broadcasting. The technical and financial issues are two-fold: the involvement of the broadcaster and the implication for the audience. The broadcasters need to acquire new digital equipment ranging from production equipment to transmission equipment. Digital broadcasting is a new technology with advancement in technology compared to the traditional analogue broadcasting. It is obvious that a lot of technical machines and equipment are needed for digital broadcasting as opined by majority of the broadcast journalists.

Power supply is another major challenge confronting broadcast stations in Abia State because power supply in Nigeria is mostly epileptic (Ihechu & Uche, 2012). Therefore, most broadcast stations operate mainly with the use of alternative source of power such as generators with an extra cost of purchasing fuel on regular basis thereby contributing to the cost of running a broadcast station. Accordingly, Ihechu & Uche, (2012) averred that "the power sector in the country is nothing to write home about. The country has spent huge sums of money, though not accountably, to revive the power supply to no avail" (p.42). This situation could make some stations not to continue if they cannot afford the acquisition of new technology in addition to increased running costs.

The journalists also perceive the public to be unaware of the demands of digital broadcasting. Thus, while the broadcasters and the journalists are working hard in preparation for the coming of total digital transmission; the public are not making efforts to digitally receive the

signals. Therefore, the expectation for adaptation to the new system when it comes may not come to fruition; because, even if digital transmission starts, reception at various homes would have some challenges. Such challenges must be remedied before the coming of total digital transmission. According to Benedict (2017) many people are still unaware of the migration to digital broadcasting as well as the required digital tools that are needed to receive the digital signals.

Table 13 shows that there was 84% agreement by journalists that positive attitude by all stakeholders towards digital broadcasting can enhance total migration to digital transmission. These expectations if implemented, according to the broadcast journalists in Abia State, will enhance total and timely migration to digital broadcasting. The perceived attitude and expectations provide the answer to the fifth research question.

This finding corresponds with the same reason Gbenga-Ilori & Ibiyemi, (2010) suggested that:

- a. That intensive public awareness was necessary for accelerated transition from analogue to digital television transmission; and
- b. That Government should ensure adequate availability of appropriate receivers at affordable rates for the benefit of the consumers.

The implication of the present finding is that since 2006 when that recommendation was made, not much has been done by the stakeholders.

In relation to the technological determinism theory, since the technology of a medium determines how individuals think and act, the digital broadcasting technology affected the dispositions of the journalists, and in the long run, influenced their behaviour which eventually affected outputs. Thus, it took the journalists to develop interest in the technology so as to be able to adapt to its offerings. Adaptation enhanced their work to produce messages that were of good quality. Quality signals entailed that the broadcast audience would appreciate the contents which were refined with digital broadcasting affordances. Therefore, the nature of messages produced under analogue broadcasting era changed with the input and features of digital broadcasting thereby supporting the proposition McLuhan's theory of technological determinism that 'the medium is the message.

In relation to the diffusion of innovation theory, the findings were in tandem with the theoretical postulations; as well as observed the five states of adoption of innovation outlined by

Rogers (1995). Thus, the awareness stage offered the journalists the opportunity to understand what digital broadcasting was all about. Knowledge of the technology influenced their favourable dispositions toward digital broadcasting which eventually culminated in the second stage: interest. Interest as a precursor to attitude made the journalists want to know more about digital broadcasting. Thus, they engaged in the third stage which is evaluation; and this helped them to identify the benefits, problems, and challenges of digital broadcasting. The fourth stage – trial – existed as the journalists engaged in training and retraining to master the demands of digital broadcasting technology sequel to the complete switchover when the technology would be fully adopted.

Conclusion and Recommendations

Abia State broadcast journalists are positively disposed to digital broadcasting based on the strong belief that digital broadcasting will improve the industry. Thus, there is willingness to support the implementation of the transition to digital broadcasting in the state. They hope for the gains of digitalisation, including ease of work demand, quality signals, etc., sustained the interest of journalists. Despite the fears of the challenges of digital broadcasting and its impact on the workforce, especially, those that are not ready to adapt immediately, the attitude of the broadcast journalists toward digital broadcasting is positive.

Based on the findings in this study, it is recommended that the following should be implemented to curtail the problems arising from implementation of digital broadcasting in Abia State.

- i. Broadcast stations should establish more channels for more programmes so as to create more job opportunities digital-compliant journalists after final switchover when only few journalists would be required per station.
- ii. The government, owners of broadcast license and other stakeholders should make adequate provisions to fund the digitalisation process as well as sustain it when it completely exists.
- iii. There should be training and retraining of broadcast journalists in order to equip them with the adequate skills needed for digital broadcasting.

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