# Staff Perceptions of Information and Communication Technology (ICT) in Broadcast Stations in Minna

Abdulhameed K. Agboola\* & Anthonia O. Emedafe\*\*

#### Abstract

The study investigated staff perceptions of Information and Communication Technology (ICT) on selected broadcast stations in Minna Metropolis. The study employed the survey questionnaire to collect data from a stratified random sample of 132 respondents from broadcast media outlets in Minna Metropolis, Niger State. The response rate was 65.2%. Overall findings revealed that the majority 39(45.35%) of the respondents claimed that there is adequate provision of computers for broadcasting in their corporation, while another majority 72 (83.72%) of the respondents agreed that ICT has increased their efficiency in sourcing for news. Yet another majority 70 (81%) of the respondents agreed that the use of ICT has transformed the level of news processing, news packaging and news reporting. However, the majority 75 (87.20%) of the respondents declared that they lack proper staff training which poses a great disadvantage to them in using ICT facilities in their broadcast stations. The study concludes that not only has ICT being properly utilized by broadcast stations, but it has also had a positive influence on the working activities of the staff in these stations. The study recommended that emphasis should be made for proper staff training and capacity building in these stations and broadcast stations should be well financed so as to enable them acquire and maintain their ICT facilities to enhance the performance of both the staff and that of the station.

**Keywords:** Broadcast Media, ICT utilization, ICT Training, Media Programmes, ICT Facilities

## Introduction

Technological breakthroughs have revolutionized communications and spread of information. Among the media of information and communication technology (ICT), radio remains the most widely accessible and flexible form of communication. ICT includes mechanisms or applications used for communication. These include radio, television, mobile phones, computers and network hardware and software, the internet, satellite systems, and also all the different services and the

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applications related to them. The upsurge of radio stations is due to liberalization the airwaves, making listeners have a wide range of listening choices. Radio serves as a paramount electronic means of communication that is change communication for continental development (Myers, 2008).

New media as we all know, denotes the developing technologies. notwithstanding, it has been noted that progressively, media formats are considerant new at some point in time. Over the years, broadcasting has experienced a revolution from the analogue age to the digital age and is still undergoing change. The present digital technology has created room for flexibility and growth to the broadcasting industry. Broadcasting keeps getting easier and more technologically inclined Digital technology and information and communication technology (ICT) are twin technologies having the same characteristics. Presently, the Nigerian broadcasting industry is undergoing quite a revolution. The media industries are transitioning from analogue to digital technology. Digitization is a groundbreaking technology in our country, which is aimed at changing the reach of broadcast stations and beyond Over the years after the world's first broadcasting station was founded, radio still remains the most affordable, flexible, accessible and persuasive form of mass communication available in cities, rural areas and urban towns. It is often the only mass medium readily available to a majority of people. The application of Information and Communication Technologies on broadcasting is designed to boost and enhance quality of both radio and TV programmes. The application of ICT through the internet provides access to global media on a much larger scale than it was before. Now broadcast stations have online channels available to their audience due to the convergence of ICT (Dominick, 2009).

Therefore, the emergence of ICT has changed the face of broadcasting, making it standard, easy and clear. Based on its history, Digital technology for some time has been in existence, but based on revolution, the new media actually began in the 1990's with the advent of compression technology, which made compression, storage, manipulation and transmission of digital information in previous unheard of capacity and qualities. The internet acts as a window providing a view of wealth of information and knowledge. Local radio serves as a mirror that reflects the knowledge of a community's experience towards it. The convergence of ICT and the new media might be the most powerful tool yet known to merge research and reflection to harness knowledge for development (Girard, 2003). With the help of ICT, several media houses have moved away from analogue method of broadcasting using computers and other modern ICT facilities. With the use of computer programs, both radio and Television broadcasting have become clear without unwanted sounds making all audio sounds come out clear, and also producing clear images. Digital radio can also be seen as an ICT because it is a modern medium that facilitates the circulation of ideas and information, and brings people together.

The application of information and communication technologies into broadcasting is designed to boost and enhance the qualities of broadcast

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#### **Statement of the Probl**

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# Aim and Objectives of

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unication technologies into the qualities of broadcast

programmes. The emergence of the internet has brought about a revolution to the communication and computer world. Haliso (2011) mentions that the internet apart from its global broadcasting reach, has a device for information distribution, it is also used a means for association and interactivity among individuals and their computer systems irrespective of geographical location.

# Statement of the Problem

According to Adigwe (2012), who conclusively stated that there are widespread opportunities in ICT as it enhances electronic and timely dissemination of news although there are technological hindrances that news organizations must overcome to deliver news electronically. This is inadvertently coupled with problems of non cooperating employees who might display aversive attitudes towards new technologies and resistance to change as the technology affected the way they used to do things. Thus, knowledge of these hindrances that are curtailment to news gathering, processing and dissemination is paramount and must be tackled head on if

Therefore, Nigerian broadcast industry just like any other industries must adapt to the use of ICT to enhance their news processing and dissemination. This is because evidences abound that information and communication technologies has had several effects on journalism and it has come here to stay permanently.

However, little is known as to the level of ICT influence on broadcast stations in Nigeria, specifically media stations in Minna Metropolis of Niger State, while the level of usage of ICT amongst the staff of these stations could not be ascertained. Likewise, the various challenges that the staff in these broadcast stations may be faced in the course of their use of ICT technologies in news gathering, processing and dissemination needed to be investigated for remedies to be probing and ascertaining the truth of the situation as far as ICT use by media corporations in Minna Metropolis are concerned.

# Aim and Objectives of the Study

Generally, the study aimed to investigate and evaluate the staff perceptions of Information and Communication Technology (ICT) usage on broadcast stations in Minna Metropolis. But specifically, the following objectives are the target of the study:

- 1. To find out the extent to which ICT has influenced broadcast stations in Minna Metropolis.
- 2. To assess the level of ICT usage by the staff of broadcast stations in Minna Metropolis.
- 3. To identify the challenges faced by the staff of broadcast stations in using ICT for news gathering, processing and dissemination.

**Research Questions** 

1. In what ways has ICT influenced the selected broadcast stations in Minna Metropolis?

2. What is the level of ICT usage by the staff of broadcast stations in Minna

Metropolis?

3. What challenges are being encountered by the staff of these broadcast stations in the usage of ICT for news gathering, processing and dissemination?

## Hypotheses

H1: There is no statistical significant influence of ICT usage on broadcasting

H2: There is no statistical significant relationship between ICT awareness and level of ICT usage by the staff of broadcasting stations.

H3: There is no statistical significant relationship between challenges being face by staff of broadcasting stations and their ICT usage.

Literature Review

Myriad of studies have investigated the influence of information and communication technologies on people's social activities to see their significant influence and impact. One of such studies was the work of Gilberds and Myers (2012) in which they examined the changing role of radio for development in Sub-Saharan Africa as new Information and Communication Technologies (ICTs) gradually emerge in the information scenery. In their research, it was argued that the merging of new technologies with radio will improve the capability for ICTs to add to the development process by enabling a mutual flow of information. Skeptics also argued about it and concluded it to be a functionalist view of technology. This article sheds light on radio development in Africa and how it is considered as an essential tool for promoting social change, participatory development and poverty alleviation because it is affordable, universal and a flexible mass medium which could disseminate information to locals in their dialects. It has been noted that radio still remains the most dominating electronic medium in sub-Saharan Africa for the fact that ICT innovation has become prevalent and transformed communication for development in Africa (Myers, 2008).

In this study, the researchers explained ICT convergence with radio and how the new technologies are offering opportunities for broadcasters and their audience by creating a two-way communication medium for better interaction on feedback and question sessions through the use of mobile telephony by radio call-in programmes and also via SMS contribution to programmes. In the ICT convergence with radio. new ICTs such as satellite technologies have been provided to enable information over a vast distance instantaneously. For example, radio stations in one region can get signals from another different station via short waves. Broadcasters now have

internet access to sou The convergence of broadcasters to act a their audience.

In this study, and the UK were en the use of radio in w in 17 countries. The different kinds of ne phones, email and int

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and their audience and their audience and their audience are convergence with radio, and to enable information are in one region can are adcasters now have

internet access to source for news and other information related to their programmes. The convergence of new ICTs and radio has created opportunities for the broadcasters to act as mediators of information thereby transferring knowledge to their audience.

In this study, selected group of researchers from across Sub-Saharan Africa and the UK were engaged to investigate the impact of new digital technologies on the use of radio in which 16 research teams were organized to carry out the research in 17 countries. The researchers were to examine the combinatory effects of radio on different kinds of new technologies, namely; freedom fone, frontline SMS, mobile phones, email and interest, and digital editing and production.

This team of researchers discovered that most radio stations in Africa have adopted the use of computers and digital editing to some degree. The finding suggests that in cases where radio stations have adopted new technologies, it was discovered that the stations were offering an improved service to their listeners. Another observation that was noticed in the research findings was that the capability of radio broadcasters to act as information dealers was questioned. Also, the teams discovered that radio stations were unable to utilize the full potential of new ICTs to improve coverage of local news due to less staff; low budget and the innovative use of new technologies are restricted to just a few persons. Unlike in the previous decade, when radio industry experienced a huge thrust in the promotion of ICTs for development, this has led to new innovations in the transfer of information and in the communication of programmes (Anaeto, Onabanjo & Osifeso, 2012).

Finally, the study concluded that as a result of external sponsors, community radio gets sponsorships from some NGOs and based on this fact, they tend to change their daily programme schedules to meet the needs of their sponsors thereby limiting their broadcast. The NGO sponsors provide stations with new technologies but the broadcasters now and then do not adapt to using the new technologies because they feel indebted to their funders. In the aspect of the frontline SMS with the new technologies, broadcasters may have to log the number of calls and SMS they get on each programme with reports on them which they find tedious and time consuming. It has been noted that over the last 20 years, community radio works best when it has a special connection with the public, and due to this reason has received considerable attention from international funders, NGOs and Civil Society Organizations.

Another study by Gapsiso and Wilson (2014) probed the effects of ICT on news processing in Borno Radio Television. In this study, it was revealed that there are various benefits that the media has gained from ICT, particularly in news gathering and processing which include time saving and faster dissemination, getting in touch with news sources over the phone instead of waiting and gathering of news from the internet. This has enhanced in the news processing and reporting and is directly tied to the adoption and use of new media technology by journalists. Apart from news sourcing, ICT has generally enhanced mass communication by providing other means of communication and improving the old communication medium. In as

much as it is found to be more advantageous, ICT still faces many challenges. The study concluded that there are still draw backs and slow development of ICT in media outlets due to the constraints being experienced whereby there is lack of infrastructures, low finance, lack of power supply, lack of internet facilities, lack trained staff to man equipment's etc. Finally, the study recommends that a better training of staff to get oriented with the ICT platforms, adequate power supply finance to provide equipment's and maintenance for media outlets.

Yet another study by Ihechu and Uche (2012) discussed the challenges digitization in the broadcasting industry in Nigeria. The study focused on the progression of broadcasting from the analogue to the digital age. In radio broadcasting, digitization will have a tremendous effect on radio output thereby improving the signal from what it is now to a better and clearer sound output. Hoping to capitalize on people's increasing awareness of high-definition television (HDTV) the radio industry is introducing HD radio, a digital service that generally upgrades the signal quality of global radio stations. The study revealed that digitization has much to offer to the industry making it possible for one frequency to have more than one channel and provision of High Definition (HD) radio. Digitization gives room for flexibility, media convergence and improving radio programme context. In as much, digital technology has many benefits and tremendous impact on broadcasting industry in Nigeria. Also, digitization faces some challenges which are forms of setback in digitization of the industry. This study elaborates on both the benefits and constraints faced due to digitization with suggestive remedies which can be used to curb the challenges experienced.

Furthermore, Adigwe (2012) in his research study on the impact of ICT on news processing and reporting in the news room, ICT use has said to enhance easy gathering of news and adequate immediacy of news. The study highlighted that ICT has revolutionized news reporting, processing and gathering. Also, that ICT has made interactivity (two-way communication) between communicators and their audience easy. Finally, the study concluded that ICT has created opportunities for extensive electronic and immediacy of news. The researcher recommended measures on how to curb the constraints for better enhancement of ICT. Also, that the constraints of ICT should not be neglected but should be worked upon and there should be training of personnel to enable easy operability of ICT platforms. Government must ensure constant power supply to enable the use of ICT equipment.

Finally, according to the European Broadcasting Union (EBU) (2011), the future of radio broadcasting will remain uncertain if it remains an analogue medium without the evolution of technology. They believe a digital future will give listeners access to radio on different devices. Therefore, it is high time that the radio broadcast and the internet converge. The findings of their work shows that with digital broadcast, radio becomes cost effective medium giving users opportunity to have access to several frequencies on a channel and there is a potential for higher quality audio. Digital broadcasting is spectrum-efficient, meaning it makes use of the best

available radio frequence of but it does not substantages of digital lit is now gummunication Technology.

## **Ineoretical Framewo**

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#### Theoretical Framework

Technological Determinism Theory

The theory was postulated by Marshal McLuhan in 1967. He states that the way we think, feel, act and how our society functions as we progress in the technological era (Tribal-literature-Print-Electronic) is being shaped by the media technology. In a more explanatory way, he feels the changes in the way individuals communicate is what shapes their existence. Firstly, cultural change was caused by communication technology. Secondly, an alteration in the manner of communication is what shapes our lives as humans and lastly, the same manner in which we shape our tools, is the same way they in turn shape us. Each new media innovation is considered to be an extension of human ability. The movement from the past era to the present has brought a new mode of communication which has caused significant change in the society. He describes the theory in relation to what society feels is the significant way to communicate. The theory helps to explain the past and the present but does not predict the future (McLuhan, 1967).

This theory explains the study in the aspect of ICT influence on broadcasting and how each new evolution has reshaped our modes of communication. It sheds lighton technological progression; how both radio and television broadcasting have transitioned from the analogue era to the present era of digitization.

#### Mediamorphosis Theory

Roger Fidler propounded the Medimorphosistheory in 1997. The theory proposes the fact that media technology and communication are all interconnected. According to him, new mediums do not develop on their own but instead change from an older media already in existence. Mediums are not sequential in nature, but rather co-exist together. He described metamorphosis as the revolution of communication media usually brought about by the complex interaction of perceived needs, competitive, political pressures, social and psychological innovation (Fidler, 1997).

The theory clarifies this study in an understandable way, explaining how technology progresses with the media which can be related to the transformation of radio and television broadcasting from analogue technology to digital technology. Hence, the findings of the study will show the benefits accrued from the use of ICTs in the present digital age.

Research Design

The population for the study comprised the staff of selected broadcast stations in Minna. The broadcast stations chosen were; Radio Niger Minna, Niger State Television (NSTV), and NTA Minna. The total number of staff in the three broadcasting corporations was 208.

Figure 1: Distribution of Staff Population Based on Media Outlets

Broadcasting Station	No of Staff	No of Questionnaire Administered	No of Questionnaire Returned	
NTA Minna	66	44	32	
NSTV Minna	68	44	28	
Radio Niger	74	44	26	
Minna			26	
Total	208	132	86	

A stratified random sample of 132 respondents was used for the study. The researchers arrived at the sample size using Krejcie and Morgan (1979) table for determining sample size. The table was established on 95 percent confidence level and 5 percent sampling error. The research instrument used for the study was the survey questionnaire with 17-item questions. The questionnaire was divided into two sections; Section A comprises of the demographic characteristics of the respondents, while Section Bis based on 7-point Likert scale which ranging from "Very Strongly Disagree" to "Very Strongly Agree" = 7responses.

The instrument was validated by 10 experts in the field of communication, who provided their views, opinions and suggestions which were incorporated into the instrument. While the reliability of the instruments was done with a test-retest method using the Pearson Product Moment correlation where 13 (10%) of the sample size 132 was chosen for the test. The scores from the coefficient of stability showed a reliability of 0.8.

Figure 2: Bench Mark for Decision Making for the Null Hypotheses

S/N	Bench Mark	Decision
1	1 - 1.49	VSD
2	2 – 2.49	SD
2	3 – 3.49	D
1	4 – 4.49	N
5	5 - 5.49	A
6	6 - 6.49	SA
7	7 – 7.49	VSA

The data fro Science (SPSS). D accordingly.

## Decision Rule = 3.

Mean scores were Where.

 $X_m = Mean score,$  $\Sigma = Summation.$ 

F = Frequency of eachn = Responses of th

Nr = Number of respondents).

# Figure 3: Guiding

Very Strongly Dis Strongly Disagree Disagreed (D) Neutral (N) Agreed (A) Strongly Agreed (S Very Strongly Agr of selected broadless die Niger Misses, with her of staff in the time

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for the study. The (1979) table for the study was the was divided into two for the respondents, from "Very Strongly"

were incorporated into done with a test-retest (10%) of the sample ment of stability showed

Hypotheses

The data from the study was analyzed using the Statistical Package for Social and Itom the Study was analyzed using the Statistical Package for Social (SPSS). Data were tabulated and frequency and percentages were displayed

Rule = 3.5

Mean scores were calculated using Likert formula,  $X_m = \frac{\sum f(x_m)}{N_n}$ 

 $X_m = Mean score,$ 

 $\Sigma$  = Summation,

F = Frequency of each (1, 2, 3, 4, 5, 6, 7) option

n = Responses of the respondents,

Nr = Number of respondents to each response category (total number of respondents).

Figure 3: Guiding Rules for Likert Scale Data Analyses

	•
Very Strongly Disagreed (VSD)	Disagreed
Strongly Disagreed (SD)	Disagreed
Disagreed (D)	Disagreed
Neutral (N)	Neutral
Agreed (A)	Agreed
Strongly Agreed (SA)	Agreed
Very Strongly Agreed (VSA)	Agreed

## **Findings**

Table 1: Demographic Characteristics of the Respondents

Characteristics	Frequency	Percentage
Gender		60.4%
Male	52	
Female	34	39.6%
Age Range		25 (0/
20-30yrs	22	25.6%
31-40yrs	35	40.7%
41-50yrs	18	20.9%
51yrs and Above	11	12.8%
Educational Qualification		10.50/
NCE/OND	9	10.5%
HND/BSC/BA	37	43%
MSC/MA/PHD	21	24.4%
Professional Qualification	19	22.1%
Working Experience		
0-5yrs	22	25.6%
6-10yrs	35	40.7%
11-15yrs	11	12.8%
16yrs and Above	18	20.9%
Level of Literacy	86	100%
Yes	-	0%
No		THE PERSON NAMED IN COLUMN
Total	86	100%

Table 1 (above) shows that the majority 52 (60.4%) of the respondent were males, while females numbered 34 (39.6%). As for age range of the respondents, the majority 35 (40.7%) of the respondents were between the ages of 31-40yrs, this is followed by 22 (25.6%) of the respondents who were between the ages of 20-30yrs. Whereas, 18 (20.9%) of the respondents were between the ages of 41-50yrs. However, 11 (12.8%) of the respondents were within 51yrs and above respectively. Regarding the educational qualification of the respondents, the majority 37 (43%) were HND/BSC holders, while 21 (24.4%) were MSC/MA/PHD holders, whereas 19 (22.1%) of the respondents had professional qualifications. However, data show that only 9 (10.5%) of the respondents were NCE/OND holders. Based on their working experience, the majority 35 (40.7%) have worked between 6-10years, while data show that 22 (25.6%) have worked between 0-5 years, whereas 18 (20.9%) of the respondents have worked for 16yrs and above. However, 11 (12.8%) have worked between 11-15yrs respectively. Also, the Table shows that a total of 86 (100%) of the respondents in the broadcast stations were all exposed to using computers and were computer literates.

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		VSD	SD	Q	z	<	SA
		-	7	3	4	5	9
	1. I believe that there is adequate provision of	14	9	16	11	2	7
	computers for broadcasting in my corporation.	(16.3%)	(7%)	(18.6%)	(12.8%)	(2.3%)	(8.1%)
(4	<ol><li>I believe that the available software meet the required</li></ol>	4	7	7	. 9	13	18
	needs.	(4.7%)	(2.3%)	(8.1%)	(2%)	(15.1%)	(20.9%)
	3. I believe that with the availability of the internet, I	∞	. 9	12	12	15	12
	can access any kind of news content.	(9.3%)	(%L)	(13.9%)	(13.9%)	(17.4%)	(13.9%)
7	4. I believe that mobile phones used during call-in	4	4	5	7	14	17
	programmes help enhance interactivity during call-in	(4.7%)	(4.7%)	(8.8%)	(8.1%)	(16.2%)	(50%)

VSA 7 30 (34.9%) 36 (41.9%) 21 (24.4%) 35 (40.7%)

Percentage	
60.4%	
39.6%	
25.6%	
40.7%	
20.9%	
12.8%	
10.5%	
43%	
24.4%	
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of the respondent were of the respondents, the be ages of 31-40yrs, this is een the ages of 20-30yrs. the ages of 41-50yrs. and above respectively. the majority 37 (43%) APHD holders, whereas 19 However, data show that Based on their working 6-10 years, while data ereas 18 (20.9%) of the 11 (12.8%) have worked a total of 86 (100%) of to using computers and

		VSD	SD	D	z	A	S
		-	7	3	4	5	9
-	I believe that there is adequate provision of	14	9	16		2	
101	computers for broadcasting in my corporation.	(16.3%)	(2%)	(18.6%)	(12.8%)	(2.3%)	8)
7	I believe that the available software meet the required	4	7	7	9	13	· -
	needs.	(4.7%)	(2.3%)	(8 1%)	(7%)	(15 10%)	00)
e,	I believe that with the availability of the internet, I	8	9	12	12	15	(7)
	can access any kind of news content.	(6.3%)	(1%)	(13 9%)	(13 0%)	(17.40)	(1)
4	I believe that mobile phones used during call-in	4	4	5	(17:27.0)	14/0)	(C)
	programmes help enhance interactivity during call-in	(4.7%)	(4.7%)	(5.8%)	(%1%)	(%291)	30)
	programmes		,		6	6/2:01)	04)
S.	I believe that the use of ICT has transformed the level	4	5	3	7	22	,
	of news processing, news packaging and news	(4.7%)	(2.3%)	(3.5%)	(81%)	(%9 50)	10
	reporting.			Grand	(6,1,0)	(6/0.67)	.+7)
9	that I have the proper skills to use the ICT	6	3	,	0	4	•
		(10.5%)	(3 5%)	(2 3%)	(10 50/)	(762)	
7.	educed my work load in	00	4	200	(10.2/8)	(0//)	.71)
		(63%)	(4 7%)	(2 3%)	(7 30/1)	10 (07)	2000
œ.	I believe that ICT has increased my efficiency in	5	2	1	(0/5.2)	10.0/0	(202)
	sourcing for news.	(5.8%)	(2.3%)	(1 2%)	(2%)	(22 192)	(10)
6	I believe that ICT has increased the level of	, ,	2	000	2	19	0.61)
	interactivity during call-in programmes	(8.1%)	(2.3%)	(6.3%)	(2.3%)	(22 1%)	(186
10.	I believe that ICT has aided better performance	10	4	4	14	15	7.00
		(11.6%)	(4.7%)	(4.7%)	(16.3%)	(17.4%)	290
=	I believe that inadequate ICT infrastructures hinder	5	2	. 1	10	18	77
	broadcasting and sourcing of information.	(5.8%)	(2.3%)	(1.2%)	(11.6%)	((20 %)	(16.3
12	I believe that inadequate power supply hinders	00	7	5	4	19	201
	broadcasting and sourcing of Information.	(9.3%)	(2.3%)	(2.3%)	(4 7%)	(22 1%)	170
13.	I believe that the inability to use modern technologies	7	, ,	2	6	200	31
	hinders sourcing of information and broadcasting.	(8.1%)	(3.5%)	(2.3%)	(10.5%)	(23.3%)	300
14	I believe that lack of proper maintenance of ICT	7	3	3	(1)	23	120.3
	facilities hinders broadcasting.	(2.3%)	(3.5%)	(3.5%)	(8 1%)	(38 4%)	(151)
15.	I believe that lack of proper trained staff poses a great	, E	7	2	4	31	10.17

VSA

7

30

(34.9%)
36

(41.9%)
27

(24.4%)
35

(40.7%)
27

(31.4%)
36

(41.9%)
36

(41.9%)
36

(41.9%)
36

(41.9%)
36

(41.9%)
36

(41.9%)
36

(41.9%)
37.2%)
16

(18.6%)
36

(34.9%)
37.2%)
37.2%)
37.2%)
37.2%)
37.2%)
38

(25.2%)
38

(31.4%)
25

(29.1%)
25

The Table 2 (above) shows the distribution of the respondents' responses according to the items of the questionnaire. According to the Table, the majority 39(45.35%) of the respondents claimed that there is adequate provision of computers for broadcasting in their corporation, while 30 (34.9%) of the respondents disagreed with this statement. However, 11 (12.8%) of the respondents were neutral about this claim. In terms of availability of software to meet their required needs, the majority 67(77.9%) of the respondents agreed with the statement, while 13(15.11%) of them disagreed with the claim. Whereas, 6 (7%) of the respondents gave a neutral responses to the claim.

With regard to the availability of the internet for accessing any kind of news contents, the majority 48(55.81%) of the respondents agreed to the statement, while 26(30.23%) were in disagreement with the statements, whereas 12 (13.9%) of the respondents gave neutral a responses on the statement. Concerning the mobile phones usage helpfulness to enhance interactivity during call-in programmes, the majority 66 (76.74%) of the respondents agreed to the statement, while 13(15.11%) of them disagreed with this statement, whereas, 7 (8.1%) of the respondents gave a

neutral responses to the statement.

As for the use of ICT in transforming the level of news processing, news packaging and news reporting, the majority 70 (81%) of the respondents agreed to this statement, while 9(10.46%) of the respondents disagreed with this statement, whereas 7 (8.1%) of the respondents gave a neutral responses. Regarding the possession of proper skills to use the ICT devices in their corporation, the majority 63(73.25%) of the respondents claimed they agreed with the statement, while 14 (16.27%) of them disagreed with the state, whereas 9 (10.5%) of the respondents gave a neutral responses concerning this statement.

In relation to the respondents' responses whether ICT has reduced their workload in broadcasting and aids better performance, the majority 70 (81.39%) of the respondents agreed with the statement, while 14 (16.27%) of the respondents disagreed with the statement, whereas 2 (2.3%) of the respondents gave a neutral responses about the statement. In term of whether ICT has increased their efficiency in sourcing for news, the majority 72 (83.72%) of the respondents agreed that ICT has increased their efficiency in sourcing for news, while 8 (9.30%) of them disagreed with the stamen, whereas 6 (7%) of the respondents gave a neutral responses concerning this statement.

As for whether ICT has increased the level of interactivity during call-in programmes in the media corporation, the majority 67 (77.90%) of the respondents agreed to the statement that ICT has increased the level of interactivity during call-in programmes, while 17 (19.76%) of the respondents disagreed with this statement, whereas 2 (2.3%) of them gave a neutral responses concerning this statement. With regard to their belief whether ICT has aided better performance, the majority 54 (62.79%) of the respondents believed the ICT has aided them to perform better in

their corporation, where about this statement.

Concerning whet sourcing of information agreed to the statement statement, whereas 10 concerning this statement broadcasting due to ina respondents agreed to the inadequate power supplies ponses concerning the

Regarding the hidue to their inability to respondents agreed to disagreement regarding tresponses to this statembroadcasting due to lack their corporation, the magreement to this state disagreement with the statesponses.

Finally, as for whereat disadvantage to the (\$7.20%), while 7 (8.13% of the respondents gave respondents (22.1%) strong

## Discussions

This section discu

Research question1: In stations in Minna Metrop

H1: There is no statistic stations.

respondents' responses the Table, the majority responses the respondents disagreed were neutral about this respondents the majority while 13(15.11%) of them respondents gave a neutral

call-in programmes, the ment, while 13(15.11%) of the respondents gave a

the respondents agreed to the responses. Regarding the transponses. Regarding the transportation, the majority the statement, while 14 10.5%) of the respondents

increased their efficiency agreed that ICT has reduced their majority 70 (81.39%) of 6.27%) of the respondents gave a neutral sincreased their efficiency pondents agreed that ICT while 8 (9.30%) of them expondents gave a neutral

77.90%) of the respondents finteractivity during call-in agreed with this statement, with this statement. With firmance, the majority 54 them to perform better in their corporation, whereas 14 (16.3%) of the respondents gave a neutral responses about this statement.

Concerning whether inadequate ICT infrastructures hinders broadcasting and sourcing of information in their corporation, the majority 68 (79.06%) of them agreed to the statement, while 8 (9.30%) of the respondents disagreed with statement, whereas 10 (11.62%) of the respondents gave a neutral responses concerning this statement. As to whether the respondents face hindrance of broadcasting due to inadequate power supply, the majority 70 (81.39%) of the respondents agreed to the statement that they face hindrances in broadcasting due to inadequate power supply, whereas 4 (4.7%) of the respondents gave a neutral responses concerning the statement.

Regarding the hindrances that the respondents encountered in broadcasting due to their inability to use modern technologies, the majority 65 (75.58%) of the respondents agreed to the statement, while 12 (13.95%) of them were in disagreement regarding this statement, whereas, 9 (10.5%) of them gave a neutral responses to this statement. As for whether the respondents face hindrances of broadcasting due to lack of proper maintenance of ICT facilities that are available in their corporation, the majority 71 (82.55%) of the respondents were in total agreement to this statement, while 8 (9.30%) of the respondents were in disagreement with the statement, whereas 7 (8.1%) of the respondents gave a neutral responses.

Finally, as for whether the respondents lack of proper staff training poses a great disadvantage to them in using ICT facilities in broadcasting, the majority 75 (87.20%), while 7 (8.13%) of them disagreed with the statement, whereas 4 (4.7%) of the respondents gave a neutral responses, while 31 respondents (36%) agree, 19 respondents (22.1%) strongly agree, and 25 respondents (29.1%) very strongly agree.

## **Discussions**

This section discusses the findings in regards of the stipulated hypotheses.

Research question1: In what ways has ICT influenced the selected broadcast stations in Minna Metropolis?

H1: There is no statistically significant influence of ICT usage on broadcasting stations.

Table 3: Responses on the level of ICT utilization in broadcasting stations

	Level of ICT utilization	Mean	Decision Rule (3.5)
<u>S/N</u>	I believe that there is adequate provision of computers for	4.4186	Accepted
2	broadcasting in my corporation I believe that the available software meet the required needs	5.5583	Accepted
3	I believe that with the availability of the internet, I can access any	4.6278	Accepted
4	kind of news content I believe that mobile-phones used during call-in programmes	5.4883	Accepted
5	I believe that the use of ICT has transformed the level of news processing, news packaging and news reporting	5.4652	Accepted

Average mean score = 5.1116

The findings above in Table 3 (above) shows the mean score and decision rule of all answered questions based on the utilization of ICT in broadcasting stations. The Table shows that a mean score of 4.4186 was generated for the provision of computers, 5.5583 was generated as a mean score for the availability of software to meet the required needs, 4.6278 was generated as the mean score of internet availability to access news content of any kind, while 5.4883 was generated as the mean score for the use of mobile phones, and a mean of 5.4652 was generated for the transformation of news processing, packaging and reporting. An average mean of 5.1116 was deduced from the total mean scores generated. Each mean value was above the decision rule of 3.5, which showed that for every factor of the level of utilization, which includes adequate provision of computers, use of software, use of mobile phones for call-in programmes, provision of internet access, the majority of the respondents supported that ICT has been properly utilized for broadcasting in their corporations. Therefore, the null hypothesis was rejected because the mean score responses of ICT effects on broadcasting stations were significantly higher than the minimum mean score.

This current study corroborates what Gilberds and Myers (2012) who highlighted in their reports that ICT Convergence and Knowledge Brokerage has promoted interactivity, and also the use of the internet for news sourcing and digital editing and production by the use of software.

**Research question 2:** What is the level of ICT usage by the staff of broadcast stations in Minna Metropolis?

H2: There is no statis level of ICT usage

Table 4: Responses of

		stations
	S/N	Level broade
_	6	I believ
		to use
	7	corpora I believ
	8	workloa I believ
	9	efficien I believ
	10	level o progran I believ perform
	D.C.	α -

Average Mean Score = 5

The findings at Several mean values waccepted or a rejected m 5.5233 was generated agenerated as the mean segmented as the mean segmented as the mean mean score of 5.3257 was programmes, and a mean average mean score of Based on the findings, showed that based on respondents fully acceptositively on their working showed that based on the findings of the segment of

This current stud which reported that ICT also making news source rejected because the meabroadcasting stations we

## Research Question 3:

What challenges are the usage of ICT for new

stations

ision Rule (3.5) Accepted Accepted Accepted

Accepted

Accepted

mean score and decision of ICT in broadcasting 185 was generated for the score for the availability of as the mean score of 5.4883 was generated of 5.4652 was generated reporting. An average pererated. Each mean value every factor of the level of use of software, use of emet access, the majority of in lized for broadcasting in rejected because the mean were significantly higher

and Myers (2012) who Knowledge Brokerage has news sourcing and digital

by the staff of broadcast

H2: There is no statistically significant relationship between ICT awareness and level of ICT usage by the staff of broadcasting stations.

Table 4: Responses on the level of ICT usage by the staff of broadcasting stations

S/N	Level of ICT usage by staff of broadcasting Stations	Mean	Decision Rule (3.5)
6	I believe that I have the proper skills to use the ICT devices in my corporation	5.5233	Accepted
7	I believe that ICT has reduced my workload in broadcasting	5.465	Accepted
8	I believe that ICT has increased my efficiency in sourcing for news	5.6395	Accepted
9	I believe that ICT has increased the level of interactivity during call-in programmes	5.3257	Accepted
10	I believe that ICT has aided better performance	4.7791	Accepted

Average Mean Score = 5.3465

The findings above in Table 4 (above) answered research question two. Several mean values were computed based on a decision rule to know if it was an accepted or a rejected mean, and a total average score was deduced. A mean score of 5.5233 was generated for having the proper skills to use ICT devices, 5.465 was generated as the mean score for reduction of workload in broadcasting, 5.6395 was generated as the mean score for increased efficiency in sourcing for news, while a mean score of 5.3257 was generated for increased level of interactivity during call-in programmes, and a mean of 4.7791 was generated for aiding better performance. An average mean score of 5.3456 was deduced from the total mean scores generated. Based on the findings, each mean score was above the decision rule of 3.5 which showed that based on the level of ICT usage by the staff, a majority of the respondents fully accepted that they make use of ICT devices which has impacted positively on their working abilities. Therefore, the null hypothesis was rejected.

This current study is in congruence with Gapsiso and Wilson (2014) study which reported that ICT use by staff saves time, making news more immediate and also making news sourcing easy and efficient. Therefore, the null hypothesis was rejected because the mean score responses of the level of ICT usage by the staff of broadcasting stations were significantly higher than the minimum mean score.

## **Research Question 3:**

What challenges are being encountered by the staff of these broadcast stations in the usage of ICT for news gathering, processing and dissemination?

**H3:** There is no statistically significant relationship between challenges being face by staff of broadcasting stations and their ICT usage.

Table 5: Responses on the Constraints to the utilization of ICT

S/N	Constraints to the utilization of ICT	Mean	Decision Rule (3.5)
11	I believe that inadequate ICT infrastructures hinder	4.558	Accepted
	broadcasting and sourcing of information		
12	I believe that inadequate power supply hinders broadcasting and sourcing of	5.407	Accepted
13	information I believe that the inability to use modern technologies hinders sourcing of	5.2559	Accepted
14	I believe that lack of proper maintenance of ICT facilities	5.3839	Accepted
15	hinders broadcasting I believe that lack of proper trained staff is a great advantage to using ICT facilities in broadcasting	5.5	Accepted

Average Mean Score = 5.221

The findings in Table 5 (above) shows the mean score and decision rule of the respondents' response. A mean score of 4.558 was generated for inadequate ICT infrastructures, 5.407 was the mean score generated for inadequate power supply, the mean score for the inability to use modern technologies was 5.2559, while the mean score for lack of proper maintenance was 5.3839, and for lack of proper trained staff, a mean score of 5.5 was generated. Based on the findings, an average mean score of 5.221 was deduced which was above the decision rule of 3.5, this shows that a majority of the respondents fully accepted the presence of the listed challenges being experienced in their broadcasting stations. Therefore, the null hypothesis was rejected.

The findings from the Table concluded that notwithstanding the accrued benefits, broadcast stations still experience challenges which hinder broadcasting to the audience the major challenges include; lack of proper trained staff, lack of proper maintenance of ICT facilities, inability to use modern technologies, inadequate power supply, inadequate ICT infrastructures.

The current st highlighted the Impact News Processing, and effects of ICT on New the challenges being entire the constitution of the constitution

#### Conclusion

In conclusion, in affected and revolution timeliness of news. With and readily available. To video quality. Consider has shown that ICT has through the introduction and providing better or buttressed the point the analogue devices. Most recorders, video cassett and also Teleprompters

The use of comp timeliness of news. The level of interactivity be news dissemination has websites, emails, blogs has opened a window available for radio and to provision of more frequeffects as far as efficien

Finally, findings properly utilized on bruvorking activities of tacquired from the use challenged from the challenged below to curb the challenged from the challenged

meen challenges being face

Decision
Rule (3.5)

Accepted

Accepted

Accepted

Accepted

Accepted

score and decision rule of merated for inadequate ICT medequate power supply, the 5.2559, while the mean lack of proper trained staff, an average mean score of of 3.5, this shows that a listed challenges being the null hypothesis was

withstanding the accrued which hinder broadcasting to trained staff, lack of proper technologies, inadequate The current study is in support of the findings from Adigwe (2012), which highlighted the Impact of Information and Communication Technology (ICT) on News Processing, and also that of Gapsiso and Wilson (2014) which highlighted the effects of ICT on News Processing in Borno Radio TV where they discussed about the challenges being encountered due to the utilization of ICT. In their works, they of power supply, lack of internet facilities and also lack of infrastructure, lack the null hypothesis was rejected because the mean score responses of challenges being encountered by the staff of broadcasting stations were significantly higher than the minimum mean score.

#### Conclusion

In conclusion, it is evident that ICT has caused tremendous change that has affected and revolutionized the broadcast industry especially in immediacy and timeliness of news. With ICT, information spread infinitely becomes faster, cheaper and readily available. The emergence of ICT has brought about enhanced audio and video quality. Considering the data collected and the findings arrived at, the study has shown that ICT has played a vital role towards improving the broadcast industry through the introduction of digital equipment's thereby increasing work efficiency and providing better output quality for analogue equipment's. Also, the study has buttressed the point that the emergence of ICT is gradually eradicating the use of analogue devices. Most media corporations have abandoned the use of tapes and tape recorders, video cassettes and VCR and have employed the use of CD, DVD players and also Teleprompters are now used in television broadcasting.

The use of computers and internet services has facilitated the immediacy and timeliness of news. The emergence of ICT has caused tremendous increase in the level of interactivity between the broadcasters and their audience. Other means of news dissemination have being employed by broadcast stations such as using websites, emails, blogs, etc. to communicate with the audience. Digital technology has opened a window of possibilities for broadcasting; a huge spectrum will be available for radio and television broadcasting in the country. This has resulted to the provision of more frequencies for broadcasting. Analogue equipment's have limited effects as far as efficient information dissemination is concerned.

Finally, findings from the study have shown that not only has ICT being properly utilized on broadcasting but that it has had a positive influence on the working activities of the staff of broadcast stations. Notwithstanding the benefits acquired from the use of ICT, some challenges still hinder the proper usage of ICT facilities. These challenges were identified and several measures were suggested below to curb the challenges.

Staff Perceptions of Information and Communication Technology (ICT) in Broadcast Stations in Minna

#### Recommendations

The researcher made the following recommendations:

- Broadcast stations should provide ICT training for capacity building of their staff.
- 2. Government should make provision for adequate and uninterrupted power supply, not only to media houses, but to the entity of Nigeria nation.
- 3. Broadcast stations should be well financed so as to enable them acquire and maintain modern ICT facilities to enhance their performances.
- 4. There should be provision for broadband and uninterrupted internet service throughout the nation.

Suggestions for further study

This study among many others has investigated staff perceptions of ICT on broadcast stations. The findings of the research were elaborative enough for better understanding. However, it would be suggested that further studies on comparison between digital broadcasting and analogue broadcasting should be considered using bigger sample size.

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Perception o
Broadcasting in

Instruction: Please read c

# Section A: Demographic I

- What is your gender?

  Male [ ] Female
- What is your age? 20-30yrs [ ] 31-
- What is your education NCE/OND [ ] Qualification [ ]
- What is your working e 0-5yrs [ ] 6-10
- Are you Computer liter
  Yes [ ] No [ ]

Section B: Main Informate Instruction: Indicate your

Very Strongly DisagreeNeutral (N) 5 – Agree

Level of Uti S/N I believe that th provision of co broadcasting in 2 believe th softwares me needs. 3 I believe that w of the internet. kind of news co 4 I believe that n during call-in p enhance interac in programmes I believe that t transformed th processing, ne news reporting enhanced access and hammed S. O. Adedeji (Eds.) American Description (Eds.) American (

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#### Questionnaire

Perception of Information and Communication Technology on (ICT)

Broadcasting in Minna (a study of selected Broadcasting Stations in Minna)

Please read carefully and tick as applicable to you. Also, you may write out response in the space provided where necessary.

Section A: Demographic Data

What is your gender?
Male [ ] Female [ ]

What is your age?

20-30yrs [ ] 31-40yrs [ ] 41-50yrs [ ] 51yrs and Above [ ]

What is your educational qualification?

NCE/OND [ ] HND/BSC [ ] M

Qualification [ ] HND/BSC [ ] MSC/MA/PHD [ ] Professional

What is your working experience?

0-5yrs [ ] 6-10yrs [ ] 11-15yrs [ ] 16yrs and Above [ ]

Are you Computer literate?
Yes [ ] No [ ]

# Section B: Main Information

Instruction: Indicate your level of agreement with the following

1-Very Strongly Disagree (VSD) 2-Strongly Disagree (SD) 3 - Disagree (D)
4-Neutral (N) 5-Agree (A) 6-Strongly Agree (SA) 7 Voy: Strongly Agree (SA)

S/N	Level of Utilization of ICT	VSD 1	SD 2	D 3	N 4	A 5	SA	VSA
1	I believe that there is adequate provision of computers for broadcasting in my corporation.		-	3		3	6	7
2	I believe that the available softwares meet the required needs.							
3	I believe that with the availability of the internet, I can access any kind of news content.							
4	I believe that mobile phones used during call-in programmes help enhance interactivity during call- in programmes							
5	I believe that the use of ICT has transformed the level of news processing, news packaging and news reporting.							

S/N	Level of ICT utilization by the Staff	VSD 1	SD 2	D 3	N 4	A 5	SA 6	VSA 7
6	I believe that I have the proper skills to use the ICT devices in my corporation.						-	
7	I believe that ICT has reduced my work load in broadcasting and aids better performance.							
8	I believe that ICT has increased my efficiency in sourcing for news.							
9	I believe that ICT has increased the level of interactivity during call-in programmes							
10	I believe that ICT has aided better performance							

S/N	Constraints to the utilization of ICTs	VSD 1	SD 2	D 3	N 4	A 5	SA 6	VSA 7
11	I believe that inadequate ICT infrastructures hinder broadcasting and sourcing of information.							
12	I believe that inadequate power supply hinders broadcasting and sourcing of Information.							
13	I believe that the inability to use modern technologies hinders sourcing of information and broadcasting.							
14	I believe that lack of proper maintenance of ICT facilities hinders broadcasting.							
15	I believe that lack of proper trained staff poses a great disadvantage to using ICT facilities in broadcasting.							

- 16. What problems do you feel your broadcasting station is experiencing in today's technological era?
- 17. In opinions/ views, what suggestions will you proffer to curb the constraints been experience in your broadcasting station due to the use of ICT.

THANKS FOR YOUR COOPERATION.

## Dissectin

#### Abstract

Radio information, no value is vital an nature of radio advantages to th literature searc mode, and adop it was discover above others n communication local and intern audience status. public than the communication aids the overall medium of mass within any given recommended a other decision r sustenance and

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Keywords: Rad

Introduction: Brief H History has it to Encyclopedia Britann pointed out and made records, at about 1888 electromagnetic wave other scientists exp

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