

## An Investigation into the Predictors of Electronic Information Sources Utilization by Journalists in Nigeria

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### Abstract

*The advent of electronic information sources (EIS) has not only brought improvement to journalism practice, but has also improved the quality and speed in the way journalists gather and report news. This paper investigated the predictors of EIS utilization by journalists in Nigeria. The paper aimed at identifying the key factors predicting journalists' use of EIS for journalistic tasks. The population comprised 1,357 journalists across the 22 media houses selected. A sample size of 926 representing 68.2% was drawn using a purposeful sampling technique. A Self-designed questionnaire was used for data collection, which yielded 0.87 Cronbach's alpha. The study found that journalists reflected high dependence on social media 559 (96.9%), E-mail 538 (93.2%), Institutional Websites 536 (92.9%), Databases 527 (91.3%) and online forum 503 (87.2%). It was also found that there were a positive correlation between EIS availability and utilization ( $r = 0.667, n = 577, p < 0.05$ ), between EIS accessibility and utilization ( $r = 0.718, n = 577, p < 0.05$ ), between ICT skills possession and EIS utilization ( $r = 0.447, n = 577, p < 0.05$ ). Given the fact that there were strong positive correlation among availability, accessibility, ICT skills and EIS utilization, the study concluded that availability, accessibility, and ICT skills are significant predictors of EIS utilization by journalists in Nigeria. Provision of continuous access to EIS and regular ICT training for journalists are recommended.*

**Keywords:** Availability, accessibility, ICT skills, electronic information sources; journalists; print media; broadcast media; EIS utilization; Nigeria

### Introduction

The evolution of information and communication technology (ICT), which cut across the three defining parameters of computer technology, Internet technology and telecommunications has

brought about the emergence of several types of electronic information sources (EIS). The benefits of EIS as provided by Shaibu and Mohammed (2017) are that needed information can be delivered from the most appropriate source to the user; user can re-specify his or her needs dynamically and that the information is obtained when it is wanted. Other benefits include, the faster and easier access than consulting print sources, straight forward to use with combinations of keywords, possibility of searching multiple files at one time, printable, searched or saved to be reused at a later date and are updated more often than printed sources. The fundamental point here is that this development has provided more access to information in electronic form, commonly referred to as electronic information sources or electronic resources.

Apparently, EIS are products of ICT and continue to evolve as new electronic resources are being discovered and used by the day. Thus, more and more information resources are made available to users across the globe courtesy of ICT. Common examples of electronic information sources, according to IFLA (2012), are: e-books, e-journals, e-magazines, indexing and abstracting databases, e-reference sources, statistical databases, government and agencies sites, full-text databases, e-images, audio and visual sources. These examples are further expatiated by Shaibu and Mohammed (2017) to include; digital libraries, electronic-learning tutors, digital photos, online videos, social media, digital media and phone apps. These sources provide opportunities to journalists in obtaining accurate and timely information; hence their journalistic work is more enhanced especially in getting access to facts and information quickly (Olarongbe & Aina 2017). With the use of EIS, a reporter can obtain information about events without actually being there. For instance, a reporter does not necessarily need to run as fast as possible to cover an event and rush back to the newsroom in order to beat the competition of being the first to print or broadcast the news. With the use of electronic and online sources, it is possible for a reporter to find out about events without actually being there even though it has a lot of ethical implications. This implies that journalists can obtain news across the world using various electronic and online sources.

Research findings have shown that EIS utilization has greatly enhanced the productivity of journalists across the globe (Nwanne, 2016). This was reiterated by Olarongbe, Akanbi, Rabi and Akanbi-Ademolake (2018) that many journalists around the world have adopted EIS in their daily operations in the areas of research, information gathering, and dissemination. This has consequently improved their productivity and efficiency. Mathew, Ogedebe and Abaya (2013) reported that many journalists around the world have been able to gather news and send such news to their stations via the Internet, using search engines such as goggle and yahoo. This has greatly helped to enhance journalistic work as well as reducing the cost of operations in their media houses. Today, media houses do not need to send reporters to every scene to cover an event. The availability of news sources like yahoo, goggle, blog, YouTube, Twitter, Facebook and various government agencies websites has made news gathering much easier than before.

However, there are many factors that can predict EIS utilization by different groups of people. Alison, Kiyingi and Bazairake (2012) investigated factors determining utilization of electronic health information resources in University of Uganda and it was found that there is a significant relationship between electronic information usage and information literacy. The study further identified poor Internet connectivity, password issues, lack of computers, lack of awareness,

lack of subscription to databases and unreliable power supply as factors influencing utilization of electronic information resources.

Other factors that can predict EIS utilization may include availability, accessibility and ICT skills. According to Aina (2014), availability is an important ingredient in accessing and using any information system. In the same vein, accessibility, according to Amusa, Salman and Ajani (2013), is considered a critical factor in the use of information system. As such, the users want what is easily accessible in order to decrease the time spent on search of information. Uhegbu (2001) observed that without availability of information, accessibility will be hampered and usage will be impaired. Iwara (2010), defined availability of information to mean provision and supply of information at the right quantity, time and format. Thong, Hong and Tam (2002) viewed availability as the degree to which an information source is observable or apparent in an organization. However, information sources may be available, but users may not be able to access them. That was why Aguolu and Aguolu (2002) noted that availability of an information source does not necessarily imply its accessibility because the source may be available, but access to it is prevented for one reason or the other. Similarly, Nnadozie and Nnadozie (2008) cautioned that availability of information sources does not automatically translate to information accessibility and use. Perhaps, factors such as funding, Internet access, and cost of subscription, power supply, user competence and search skills may affect level of accessibility and use of information.

Olarongbe and Aina (2017) submitted that accessibility determines the speed at which an information output in any format is obtained and used. Accessibility is defined as the degree of convenience with which an individual accesses an information system. Provision of access to EIS is a fundamental requirement for usage and the difficulty an individual experiences in accessing the information source will hinder a potential user from using it (Oduwole & Akpati, 2003; Park, Roman, Lee & Chung, 2009). Greater accessibility leads to more frequency of use of an information source, whereas low accessibility works as a barrier in using the information source or system (Oyewusi & Oyeboade, 2009; Amusa, Salman & Ajani 2013; Okon, Ngulube & Onyacha, 2014).

Similarly, utilization of EIS often requires some level of ICT competence. Ability to use EIS efficiently requires users to possess good ICT skills. Lack of requisite ICT skills can hamper efficient and effective use of EIS. According to Chavan (2014), journalists must possess essential ICT skills regarding the use of EIS. Proficiency on windows application, word processing, desktop publishing, World Wide Web, e-mail and databases are now extremely needed. These skills would enable journalists to select, access, gather, organize, evaluate and use EIS efficiently. In view of the foregoing, it is evident that many factors can predict EIS utilization by various group of professionals such as journalists. Thus, this study seeks to investigate availability, accessibility and ICT skills as predictors of EIS utilization by journalists in Nigeria.

### **Statement of the Problem**

Factors predicting EIS utilization are numerous. Some of them include demographic characteristics, information literacy skills, self-efficacy, usefulness and trust in the source, authority of the source, priority and lack of requisite ICT infrastructure. To this effect, Alison, Kiyangi and Bazairake (2012) have categorized factors predicting EIS utilization into human

and institutional factors. Human factors may include age, gender, experience, self-efficacy, willingness, computer skill-level, perceived usefulness and perceived ease of use. Institutional factors are adoption preparedness, funding, ICT policy, effort expectancy and performance expectancy. However, the review of literature has revealed that studies on factors predicting journalists' use of EIS in Nigeria are scanty compared to developed countries of the world (Olarongbe & Aina, 2017). Apparently, studies on predictors of journalists' EIS utilization in Nigeria have not been adequately documented in the literature. This must be addressed because if factors predicting journalists' EIS utilization in Nigeria are not known or well documented, it may result in low usage. It is on this basis that this study sought to investigate the key predictors of journalists' EIS utilization with the aim to fill in the gap identified in the literature.

### **Research Objectives**

The main objective of this study is to investigate the predictors of EIS utilization by journalists in Nigeria. The specific objectives are to:

1. identify the different types of EIS being used by journalists in Nigeria;
2. examine the extent of EIS utilization by journalists in Nigeria;
3. identify the key predictors of EIS utilization by journalists in Nigeria
4. determine the relationship among availability, accessibility, ICT skills and EIS utilization by journalists in Nigeria; and

### **Research Hypotheses**

The following null hypotheses were formulated for testing and they were tested at 0.05 level of significance.

1.  $H_{01}$ : There is no significant relationship between EIS availability and EIS utilization by journalists in Nigeria.
2.  $H_{02}$ : There is no significant relationship between EIS accessibility and EIS utilization by journalists in Nigeria.
3.  $H_{03}$ : There is no significant relationship between ICT skills possession and EIS utilization by journalists in Nigeria.
4.  $H_{04}$ : Availability of EIS, accessibility of EIS and journalists' ICT skills possession combined will not significantly determine EIS utilization by journalists in Nigeria.

### **Review of Related Literature**

#### **The Use of Electronic Information Sources for Journalism Practice**

According to Nwanne (2016), journalists' usage of EIS in Nigeria is still very low compared to journalists in the developed countries like United States of America and United Kingdom. Nevertheless, the available studies conducted on journalists' EIS utilization in Nigeria did not focus on the predictors rather than effects and benefits. However, findings of these studies have revealed that there is constant growth in the awareness and interest of journalists in using EIS, although the usage is still very low (Talabi, 2011; Ikpe & Olise 2010, Ekhareafo, Asemah & Edegoh, 2013; Okon & Eleba, 2013). This has clearly pointed to the fact that there has been constant increase in the growth of awareness and interest of journalists in the use of EIS. For instance, Talabi (2011) examined the implication of EIS on the practice of journalism in Nigeria using theoretical method. The study found that EIS was largely preferred by the journalists because of its interactive nature and it also provides more timely information than any other source.

Adigwe (2012) investigated the impact of EIS on news processing, reporting and dissemination on three broadcast stations in Lagos, Nigeria, using questionnaire based survey method. The study surveyed 90 journalists and the study found that 100% of the respondents asserted that they were fully aware of the benefits of EIS as usage of EIS improves the processes involved in news gathering and processing. The study also found that the most common types of EIS known to the respondents were email, Facebook, Twitter and YouTube. In the same vein, Bolodeoku (2012) studied the level of awareness and use of EIS for journalistic work. The study revealed that there is a high level of awareness of the benefits of EIS and these benefits included easy accessibility to information, online information sharing, currency and international in scope. Mathew, Ogedebe and Abaya (2013) investigated Internet usage among broadcast media practitioners in Maiduguri, Nigeria. The study revealed that the frequently used EIS include websites (42%), blogs (22%), e-mail (19%), social media (10%) and YouTube (8%). In the same vein, Okon and Eleba (2013) investigated the extent to which Nigerian journalists integrate the use of EIS as well as ICT in their professional repertoire. One hundred and twenty (120) journalists were surveyed in Port hacourt, Nigeria. The study found that (67%) of the respondents were aware of the benefits of EIS while (52%) of the respondents used EIS in their day to day operations. The respondents claimed that the use of EIS had a great impact on their professional repertoire as it facilitated news gathering and fast access to information. The findings of all these studies have proved beyond any doubt that journalists in Nigeria have become fully aware of the benefits of EIS utilization in their journalistic work but the factors predicting EIS utilization are largely not addressed.

### **Availability of Electronic Information Sources to Journalists**

The arrival of the digital revolution as well as the evolution of the Internet and World Wide Web (WWW) has reshaped the way information is accessed and used by people worldwide. Different types of information are now available on the Internet, thereby leading to information overload. On a daily basis, the new devices and tools are added in exponential growth that sometimes appears to cause an excess of choices and opportunities that journalists don't know yet (Obijiofor & Hanusch, 2013). These new frontiers of information media have enriched news and its process. Journalists or media organizations can be connected to the Internet through an Internet service provider, thereby having global access to information. Chavan (2014) observed that once a journalist or media organization is hooked to the Internet, a variety of tools like the e-mail, newsgroups and the World Wide Web can be used for transmitting or obtaining information. Internet has brought a lot of improvements in the way news information is gathered. With the help of the search engines like google and yahoo, many broadcast media practitioners of major broadcasting stations around the world have been able to gather news and send such news to their stations via the Internet, from the comfort of their home or office and this has helped to cut down the cost of operations (Kaul, 2013).

Obijiofor and Hanusch (2013) reiterated that media institutions do not need to send correspondents to every scene to cover an event because the availability of news sources like news blogs, YouTube, Twitter, Facebook and web sites has made news gathering much easier than before. That was why Chavan (2014) submitted that today's reporter can sit at his or her desk and instantly access documents, databases, government records and expert sources. This clearly point to the fact that this advanced technological era has provided journalists with an unprecedented opportunity in terms of availability of several electronic information products as journalists can now access information they previously went out to look for right on their



desks. Today, different types of EIS now exist, ranging from online databases and websites, CD-ROMs, DVD-ROMs, e-books, e-journals, e-magazines, e-newspapers, e-reference sources and search engines. Journalists may not use these sources unless they are made available and accessible. The more journalists see the EIS being made available, the more likely they will use them. Park, Roman, Lee and Chung (2009) pointed out that EIS availability and visibility are likely to guide potential users to use EIS. Thus, it is expected that higher availability and visibility of EIS will lead to the perception that the EIS is accessible and consequently increases its usage.

However, Nnadozie and Nnadozie (2008) cautioned that availability of electronic information resources does not automatically translate to use. Ugwu (2008) reiterated that the problems of transmission, storage, and display of information have been combined with the problem of getting information to users quickly. In other words, information may be made available but its accessibility may be impaired because of factors such as lack of awareness, lack of retrieval tools and poor information searching skills.

### **Accessibility of Electronic Information Sources to Journalists**

With technological convergence among the computer technology, Internet technology and telecommunications due to electronic networking, access to information in electronic form has been expanded. ICT has redefined the mode of access to information and how journalists worldwide use information in carrying out journalistic tasks. In view of the impact of EIS on journalistic work, journalists in Nigeria are lagging behind their counterparts in the developed countries in terms of accessibility and utilization (Olarongbe & Aina, 2017). The major contributory factor to this phenomenon has been the digital divide, the technological gap between the developed and developing countries. Hence, the fundamental problem associated with the digital divide in developing countries has been that of a poor electronic information environment characterized by low level of adoption of ICT infrastructure (Okon, Ngulube & Onyacha, 2014).

According to Aqili and Moghaddam (2008), the effective use of ICTs offers huge potential to facilitate information flow in the society, specifically the integration of ICTs in the provision of EIS. Grace, Kenny and Qiang (2004) identified the benefits of ICTs to include the ability for users to have timely access to information. According to Dadzie (2005), access to EIS is done through relevant ICT infrastructure; therefore, the sustainable use of EIS will depend to a large extent on the provision of appropriate ICT facilities. In other words, the extent of accessibility and utilization of EIS by journalists depend on the nature or state of the electronic information environment of journalists in Nigeria. The transition from traditional printed information to electronic information has resulted in availability of many emerging electronic information products, which are easier to access and retrieve than printed sources. Unlike printed sources, electronic information sources provide wider access and usage beyond a particular location as electronic sources can be accessed by users in the comfort of their offices or residential homes with appropriate connectivity (Park, Roman, Lee and Chung, 2009).

### **Journalists' ICT Skills in Relation to EIS Utilization**

With the introduction of new media, journalists now have to worry about their knowledge and skill in the digital age. Many journalists do not have a digital knowledge background. Many were trained using the old abandoned typewriters, which were manually operated. The

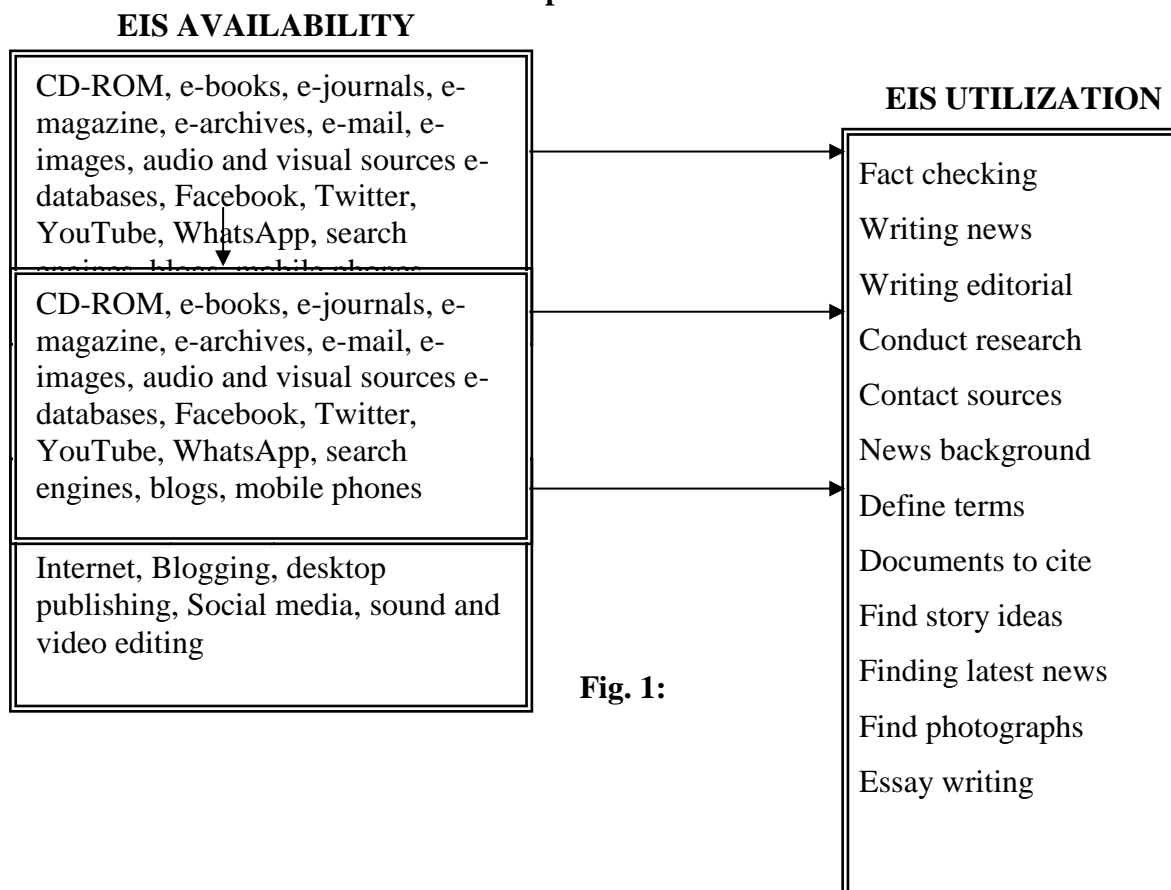
introduction of computers has necessitated an entirely new set of skills and knowledge. Journalists are now expected to be able to use any kind of ICT device effectively to find sources and communicate with relevant individuals, search the Internet for information, exchange data, conducting research, locating stories, and other tasks (Veglis & Pomportsis, 2013). For journalists to be able to access and use EIS, a new set of ICT skills are required. According to Andreas and Spiros (2005) and Chavan (2014), journalists must possess essential ICT skills needed to use EIS effectively because the adoption and use of EIS requires a certain level of ICT skillfulness. ICT skills of selecting, accessing, gathering, organizing and evaluating electronic information sources are now extremely important, especially in an electronic information environment. However, from literature, there appears to be a dearth of studies on ICT skills in relation to EIS utilization by journalists in Nigeria. However, a number of studies conducted elsewhere have established that journalists must possess essential ICT skills regarding the use of EIS. For instance, Andreas and Spiros (2005) conducted a study in Greece to depict the essential ICT skills a journalist must possess to use EIS in this technological environment. The study found that the top priority is the ability of the journalist to surf the web and make use of websites (98.5%), followed by the ability to use e-mail effectively (97.8%). Further down the list was the ability to use text processing software (97.1%), the ability to search databases (78.8%), the ability to work with content management systems in local networks (47.4%), the use of spreadsheets (35%), familiarity with graphics and photo editing (27%), the ability to synthesize electronic presentations (23.4%) and at the bottom of the list lies the ability to construct web pages (16.1%). In the same vein, Abdullah (2006) listed basic skills that journalists need in order to be able to function effectively in this technological era. The eight major skills listed included computer basics, word processing, spreadsheets, databases, communications software, e-mail, the WWW, and Internet protocols such as file transfer protocol.

Furthermore, Abdullah (2006) investigated technology and Internet-related information behaviour of print journalists in Kuwait. Journalists were asked to indicate their skill-level in using each of 21 applications listed on an incremental scale starting at 1 for novice, 3 for average, and 5 for expert. The study found that journalists were most skilled in using e-mail (mean=3.512), the WWW (mean=3.478), and Operating Systems (3.102). The study further revealed that journalists were skilled at less than the average level in using 17 out of the 21 applications listed, as fifth ranked Audio/Video Software recorded a skill-level mean of 2.555, which was below the average of 3 according to the scale provided. Furthermore, journalists were least skilled in using more recent EIS such as Podcasting, RSS Feeds, and Wikis. Also, the average mean for all applications listed showed that journalists were below average in skill-level.

Veglis and Pomportsis (2013) conducted a study to determine the necessary ICT skills that Greek journalists must possess to cope successfully with the work demands in this digital age. Professional journalists were surveyed and the findings revealed that Greek journalists used ICT tools extensively and possessed the basic ICT skills needed for their profession. But they seem to fall behind when it comes to more advanced ICT skills such as sound and video editing and web and DTP. The situation as far as Internet tools and services are concerned is similar. The majority of the journalists are acquainted with basic Internet services such as WWW and e-mail, but the percentages of use deteriorate in using blogs, Twitter, and other social media networks. Journalists' lack of ICT skills can have a significant negative impact on their

profession, as it will be difficult for them to adapt to their continuously changing working environment.

**Conceptual Framework**



**Fig. 1:**

Conceptual Framework  
 Source: (Self-designed)

The conceptual framework given in figure 1 explains the process by which this study was carried out. The model proposed a number of relationships and interactions between the independent variables of the study; EIS availability, EIS accessibility and ICT skills and the dependent variable; EIS utilization. It was assumed that each of the independent variables of EIS availability, EIS accessibility and ICT skills was directly linked to and associated with the dependent variable of EIS utilization. It was assumed that availability of EIS, accessibility of EIS and ICT skills possession would determine EIS utilization by journalists in Nigeria. Another assumption was that there is a relationship between two of the independent variables of EIS availability and EIS accessibility. The assumption was that if EIS is made available, it would be expected to be accessible too because one can only access what is available.

**Methodology**

The study adopted a pure quantitative method of the survey design. Geographically, only media houses in Lagos and Abuja were covered because over ninety percent of media houses with



national coverage in Nigeria are based in Lagos (commercial capital) and Abuja (political capital). The two cities are regarded as the centres of journalism practice in Nigeria. However, from 42 media houses, 22 were purposively selected. The study covered both print (newspaper) and broadcast (radio and television) media. The population comprised 1,357 journalists while a sample size of 926 representing 68.2% was drawn using a purposeful sampling technique. A self-designed survey questionnaire was used for data collection, which yielded 0.868 Cronbach's alpha. A staff was identified in each media house and used as research assistant. The research assistants distributed and received copies of the completed questionnaire in their respective media houses because direct access to media houses and their journalists was difficult due to their busy nature and security issues. Each was numerically coded so that it would be possible to determine the return rate. Of 926 copies of questionnaire distributed, 577 (62.3%) copies were returned and found useable for data analysis. The use of a staff in each of the media houses as research assistant contributed to high response rate achieved. Data analysis was done using descriptive statistics by converting frequencies to percentages.

**Data Analysis**

**Table 1: Distribution of Respondents according to Media House**

Source: Field work 2017

<b>Media House</b>	<b>No. of Administered questionnaire</b>	<b>No. of Returned questionnaire</b>	<b>Response Rate (%)</b>	<b>% Total Respondents</b>
<b>Television Houses</b>				
Nigeria Television Authority (NTA)	75	49	65.3	8.5
Africa Independent Television (AIT)	54	31	57.4	5.4
Channels Television	66	35	53.0	6.1
Murhi International Television (MITV)	38	32	84.2	5.5
Silverbird Television	45	25	55.6	4.3
<b>Radio Houses</b>				
Radio Nigeria (FRCN)	58	39	67.2	6.6
Voice of Nigeria (VON)	46	24	52.2	4.2
Ray Power	44	31	70.5	5.4
<b>Newspaper Houses</b>				
Daily Times Newspaper	34	21	61.8	3.6
Punch Newspaper	45	24	53.3	4.2
Guardian Newspaper	38	25	65.8	4.3
Vanguard Newspaper	32	29	90.6	5.0
News Watch Newspaper	35	21	60.0	3.6
ThisDay Newspaper	33	18	54.5	3.1
Daily Champion Newspaper	30	16	53.3	2.3
The Sun Newspaper	32	30	93.8	5.2
National Mirror Newspaper	36	22	61.1	3.8
The Nation Newspaper	30	20	66.7	3.5
Daily Trust Newspaper	37	23	62.2	3.98
Leadership Newspaper	35	25	71.4	4.3
People's Daily Newspaper	32	19	59.4	3.3
Nigerian Pilot	25	18	72.0	3.1
<b>Total</b>	<b>926</b>	<b>577</b>	<b>62.3</b>	<b>100</b>

Table 1 reveals the number of respondents according to media house. From the study's sample of 926, 577 responded to the administered questionnaire yielding a response rate of 62.3%, which was considered adequate. All the returned copies of the questionnaire were found useable for data analysis. Murhi International Television (MITV) had the highest response rate of 84.2% and was distantly followed by Nigeria Television Authority with 65.3% while Channels TV had the lowest response rate of 53.0% in the category of television stations. In the category of radio stations, Ray Power had the highest response rate of 70.5%, Radio Nigeria followed with 67.2% while Voice of Nigeria had 52.1% response rate. In the category of newspaper houses, The Sun Newspaper had the highest response rate of 93.6%, closely followed by Vanguard Newspaper with 90.6% while Nigerian Pilot Newspaper and Leadership

Newspaper had 72.0% and 71.4% response rates respectively. No media house had less than 50% response rate apart from Daily Independent Newspaper which contributed no respondent. Journalists in Daily Independent Newspaper were on industrial strike throughout the period of data collection for this study. The expected number of respondents from Daily Independent Newspaper was 26 representing 2.81% of the total respondents. This was considered not very significant and could not have affected the validity of the overall results of the study.

**Table 2: Distribution of Respondents according to Media Type**

<b>Media Type</b>	<b>Expected Respondents</b>	<b>% Expected Respondents</b>	<b>No. of Respondents</b>	<b>% Response Rate</b>	<b>% Total Respondents</b>
Broadcast Media	426	46.01	226	53.1	39.1
Print Media	500	53.99	351	70.2	60.9
<b>Total</b>	<b>926</b>	<b>100</b>	<b>577</b>	<b>62.31</b>	<b>100</b>

Source: Field work 2016

Table 2 reveals that out of 926 expected respondents, broadcast media contributed 426 respondents representing (46.01%) while print media contributed 500 respondents representing (53.99%). The table further reveals that from 426 expected respondents from broadcast media, 226 representing (53.1%) responded to the questionnaire and from 500 expected respondents from print media, 351 representing (70.2%) responded which were considered adequate for the analysis. The table further shows that print media had the highest percentage of total respondents (60.83%) while broadcast media had (39.17%) of total respondents.

**Table 3: Distribution of Respondents according to Media Status**

<b>Media Status</b>	<b>Expected Respondents</b>	<b>% Expected Respondents</b>	<b>No. of Respondents</b>	<b>% Response Rate</b>	<b>% of Total Respondents</b>
Public	179	19.33	112	62.56	19.41
Private	747	80.67	465	62.24	80.59
<b>Total</b>	<b>926</b>	<b>100</b>	<b>577</b>	<b>62.31</b>	<b>100</b>

Source: Field work 2017

Table 3 shows that privately owned media houses contributed the highest number of respondents with 747 respondents representing (80.67%) while publicly owned media houses contributed 179 respondents representing (19.33%). This was expected because the majority of the media houses in Nigeria are privately owned. The table further shows that both public and private media houses had good response rates of (62.56%) and (62.24%) respectively.

**Table 4: Distribution of the Respondents according to Demographic Characteristics**

<b>Variables</b>	<b>Characteristics</b>	<b>Count</b>	<b>Percentage</b>
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Gender	Male	332	57.5
	Female	245	42.5
	Total	577	100
Age	46 years or above	26	4.5
	Between 41-45 years	40	6.9
	Between 36-40 years	243	42.1
	Between 31-35 years	168	29.1
	Between 26-30 years	72	12.5
	Between 20-25 years	28	4.9
Total	577	100	
Qualification	Diploma/National Diploma (ND)	61	10.6
	Higher National Diploma (HND)	65	11.3
	Bachelor Degree	196	34.0
	Postgraduate Diploma	155	26.9
	Master's Degree	100	17.3
	Ph.D.	0	0.0
Total	577	100	
Primary Assignment	Specialized assignment	90	15.6
	Freelancer	48	8.3
	Beat	165	28.6
	General assignment	219	38.0
	Entertainment	55	9.5
Total	577	100	

Source: Field work 2017

Table 4 presents the demographic characteristics of the respondents. The distribution according to gender shows a slight male dominance 332 (57.5%) against females 245 (42.5%). According to age distribution, the table shows that respondents within the age bracket of '36-40' years dominated with 243 (43.1%), distantly followed are the respondents within the age bracket of '31-35' years 168 (29.1%) while respondents within the age bracket of '46 years or above' constitute the minority with 26 (4.5%). Regarding the respondents' educational qualifications, there was slight predominance of respondents with Bachelor Degree 196 (34.0%) over respondents with PGD 155 (26.9%) while respondents with National Diploma constitute the minority 61 (10.6%). Regarding respondents' primary journalistic assignment, the majority of the respondents 219 (38.0%) were covering general assignment, followed by 165 (28.6%) of the respondents covering beat such as courts, politics, economics, business, health, and security, 90 (15.6%) of the respondents were covering specialized assignments while 48 (8.3%) of the respondents, constituting the minority, were freelancer.

**Table 5: Types of EIS being used by the Respondents**

Types of EIS	Strongly Agree	Agree	Disagree	Strongly Disagree	Total
CD-ROMS	110 (19.1%)	312 (54.1%)	128 (22.2%)	27 (4.7%)	577 (100%)
Databases	132 (22.9%)	395 (68.5%)	22 (3.8%)	28 (4.9%)	577 (100%)

E-books	108 (18.7%)	140 (24.3%)	288 (49.9%)	41 (7.1%)	577 (100%)
E-journals	103 (17.9%)	171 (29.6%)	280 (48.5%)	23 (4.0%)	577 (100%)
E-magazines	196 (34.0%)	47 (8.1%)	303 (52.5%)	31 (5.4%)	577 (100%)
E-mails	452 (78.4%)	86 (14.9%)	33 (5.7%)	6 (1.0%)	577 (100%)
E-reference sources	165 (28.6%)	63 (10.9%)	187 (32.4%)	162(28.1%)	577 (100%)
Institutional Websites	477 (82.7%)	59 (10.2%)	24 (4.2%)	17 (2.9%)	577 (100%)
Online forum	480 (83.2%)	23 (4.0%)	61 (9.16%)	13 (2.3%)	577 (100%)
Social media	509 (88.2%)	50 (8.7%)	8 (1.4%)	10 (1.7%)	577 (100%)

Source: Field work 2018

Table 5 provides data on different types of EIS being used by the respondents. However, for easy and convenience presentation of the results, the researchers considered strongly agreed and agreed responses to represent the same view, while strongly disagreed and disagreed responses also represent the same view. Results in table 5 reveals that the majority of the respondents agreed that Social Media 559 (96.9%), E-mail 538 (93.2%), Institutional Websites 536 (92.9%), Databases 527 (91.3%), Online Forum 503 (87.2%) and CD-ROM 422 (73.1%) are the common types of EIS that were being used by the respondents. The table further shows that E-reference Sources 349 (60.5%), E-magazines 334 (57.9%), E-books 329 (57.1%) and E-journals 303 (52.5%) are the types of EIS that are not commonly used by the respondents.

**Table 6: Extent to which Respondents Use EIS**

Electronic Information Sources	Extent of Use				Total
	Daily	Weekly	Monthly	Never	
CD-ROMs	130 (22.5%)	42 (7.3%)	384 (66.6%)	21 (3.6%)	577 (100%)
Databases	170 (29.5%)	261 (45.2%)	107 (18.5%)	39 (6.8%)	577 (100%)
E-books	183 (31.7%)	54 (9.4%)	313 (54.2%)	27 (4.7%)	577 (100%)
E-journals	146 (25.3%)	53 (9.2%)	328 (56.8)	49 (8.5%)	577 (100%)
E-mails	501 (86.8%)	43 (7.5%)	28 (4.9%)	5 (0.9%)	577 (100%)
E-magazine	172 (29.8%)	31 (5.4%)	108 (18.7%)	266 (46.1%)	577 (100%)
E-reference sources	182 (31.5%)	37 (6.4%)	64 (11.1%)	294 (51.0%)	577 (100%)
Institutional Websites	106 (18.4%)	64 (11.1%)	385 (66.7%)	22 (3.8%)	577 (100%)
Online forum	489 (84.7%)	67 (11.6%)	20 (3.5%)	1 (0.2%)	577 (100%)
Social media	526 (91.2%)	26 (4.5%)	7 (1.2%)	18 (3.1%)	577 (100%)

Source: Field work 2018

Table 6 provides data on the extent to which journalists use EIS and the usage pattern. The table reveals that the majority of the respondents used Social Media 526 (91.2%), E-mail 501 (86.8%) and Online Forum 489 (84.7%) on daily basis. The table further shows that it was only Databases being used by the majority of the respondents 261 (45.2%) on weekly basis while the majority of the respondents used Institutional Website 385 (66.7%), CD-ROMs 384 (66.6%), E-journals 328 (56.8%) and E-books 313 (54.2%) on monthly basis. The analysis of data in table 6 further reveals that in the category of EIS being used by the respondents on daily basis, Social Media 526 (91.2%) was the most listed, online discussion forum 261 (45.2%) was the only EIS being used on weekly basis while Institutional website was the most used EIS on monthly basis 385 (56.8%).

### Hypotheses Testing



Four research hypotheses were tested in this study in line with the research objectives. Correlation statistics, specifically Spearman Rank Order Correlation, was used to test the four hypotheses of the study. They were tested at 0.05 levels of significance in order to take an appropriate decision to either accept or reject a hypothesis statement. Each of the independent variables (availability, accessibility and ICT skills) was correlated with the dependent variable (utilization). Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity.

HO<sub>1</sub>: There is no significant relationship between EIS availability and EIS utilization by journalists in Nigeria.

**Table 7: Correlation between EIS Availability and EIS Utilization by the Respondents**

			EIS Availability	EIS Utilization
Spearman's rho	EIS Availability	Correlation Coefficient	1.000	.667**
		Sig. (2-tailed)	.	.000
		N	573	573
	EIS Utilization	Correlation Coefficient	.667**	1.000
		Sig. (2-tailed)	.000	.
		N	573	577

\*\* . Correlation is significant at the 0.01 level (2-tailed)

From table 7, the relationship between EIS availability and EIS utilization was investigated using Spearman rank order correlation coefficient. The result shows that there was a strong, positive correlation between the two variables,  $r = 0.667$ ,  $n = 577$ ,  $p < 0.05$ , with high levels of EIS availability associated with high levels of EIS utilization. Thus, the stated null hypothesis that there is no significant relationship between EIS availability and EIS utilization by journalists in Nigeria was rejected.

HO<sub>2</sub>: There is no significant relationship between EIS accessibility and utilization by journalists in Nigeria

**Table 8: Correlation between EIS Accessibility and Utilization by the Respondents**

			EIS Accessibility	EIS Utilization
Spearman's rho	EIS Accessibility	Correlation Coefficient	1.000	.718**
		Sig. (2-tailed)	.	.000
		N	577	577
	EIS Utilization	Correlation Coefficient	.718**	1.000
		Sig. (2-tailed)	.000	.
		N	577	577

\*\* . Correlation is significant at the 0.01 level (2-tailed)

Table 8 shows the result of the analysis of correlations between EIS accessibility and EIS utilization using Spearman rank order correlation coefficient. The result shows that there was quite a strong, positive correlation between the two variables,  $r = 0.718$ ,  $n = 577$ ,  $p < 0.05$ , with high levels of EIS accessibility correlated with high levels of EIS utilization by journalists in Nigeria. By implication, the stated null hypothesis that there is no significant relationship between EIS accessibility and EIS utilization by journalists in Nigeria was rejected.

HO<sub>3</sub>: There is no significant relationship between ICT skills possession and EIS Utilization by journalists in Nigeria.

**Table 9: Correlation between ICT Skills and EIS utilization by the Respondents**

		ICT Skills	EIS Utilization
ICT Skills	Correlation Coefficient	1.000	.447**
	Sig. (2-tailed)	.	.000
	N	577	577
Spearman's rho	Correlation Coefficient	.447**	1.000
	Sig. (2-tailed)	.000	.
	N	577	577

\*\* . Correlation is significant at the 0.01 level (2-tailed)

Table 9 presents the result of the analysis of correlations between journalists' ICT Skills possession and EIS utilization using Spearman rank order correlation coefficient. The result shows that there was a medium, positive correlation between the two variables,  $r = 0.447$ ,  $n = 577$ ,  $p < 0.05$ , with increased levels of ICT Skills associated with moderately increased levels of EIS utilization by journalists in Nigeria. By implication, this finding is inconsistent with the stated null hypothesis, thus the hypothesis that there is no significant relationship between ICT skills possession and EIS Utilization by journalists in Nigeria was rejected.

HO<sub>4</sub>: Availability, accessibility and ICT skills combined will not significantly affect EIS utilization by journalists in Nigeria.

**Table 10: Correlations between the Contributions of Availability, Accessibility and ICT Skills on EIS Utilization by the Respondents**

		EIS Utilization	EIS Availability	EIS Accessibility	ICT Skills
Pearson Correlation	EIS Utilization	1.000	.	.	.
	EIS Availability	.673	1.000	.	.
	EIS Accessibility	.719	.852	1.000	.
	ICT Skills	.437	.572	.491	1.000

A stepwise multiple regression analysis was conducted to test the hypothesis four after converting the three independent variables and the dependent variable into continuous variables. The first step was to find the multiple correlations between the dependent variable

(EIS utilization) and the three independent variables (EIS availability, EIS accessibility and ICT skills). The result of the regression analysis was presented in table 10. The results reveal that correlations exist among the dependent variable (EIS utilization) and the three independent variables (EIS availability, EIS accessibility and ICT skills). The results indicated that EIS accessibility had the highest correlation ( $r = 0.72$ ) with EIS utilization, this was followed by EIS availability ( $r = 0.67$ ) and ICT skills ( $r = 0.44$ ). The results established that availability, accessibility and ICT skills combined are significant predictors of EIS utilization by journalists in Nigeria.

### **Discussion of the Findings**

The analysis of demographic data shows that there was slight male dominance (57.5%) as against females (42.5%). Respondents within the age bracket of '36-40' years dominated the population (43.1%) while respondents within the age bracket of '46 years or above' were the minority (4.9%). There was predominance of respondents with Bachelor's Degree (34.0%) while none of the respondents had Ph.D. The print media contributed the highest number of respondents (72.8%) while respondents from the privately owned media houses constituted the majority (73.3%). The majority of the respondents (38%) were reporters and (28.1%) of the respondents had more than 16 years of work experience. These demographic results are considered normal as they corroborated demographic findings of other related studies as those of (Nwanne, 2016; Mathew, Ogedebe, & Abaya, 2013).

The analysis of data on types of EIS accessible to journalists shows that the majority of the respondents indicated that six out of ten types of EIS listed were being used. These included Social Media 559 (96.9%), E-mail 538 (93.2%), Institutional Websites 536 (92.9%), Databases 527 (91.3%), Online Forum 503 (87.2%) and CD-ROMs 422 (73.1%). These findings corroborate Olarongbe and Aina (2017), and Olarongbe, Akanbi, Rabiun and Akanbi-Ademolake (2017) that there are tremendous increase in the use of Social Media, E-mail and other EIS by the journalists in Nigeria. The findings also conform to Mathew, Ogedegbe and Abaya (2013), Abdulla (2006) who found that E-mail and Social Media were highly being used by journalists.

Regarding the extent of EIS usage, it was found that the respondents used Social Media 526 (91.2%), E-mail 501 (86.8%), Online Forum 489 (84.7%) on daily basis while Databases was the only type of EIS being used on weekly basis 261 (45.2%). These results affirm the findings of Aun (2013), Mathew, Ogedebe and Abaya (2013) that Social Media such as Facebook, Twitter and YouTube are predominantly used in searching for specific information and generally to stay up to date on news. This could be due to the fact that Facebook and Twitter allow journalists to identify and approach people that would otherwise be difficult to find. Again, this preference could be due to the benefits of Facebook, Twitter and YouTube which included: speed and instantaneous access to information; easier access to information and access to variety of opinions and people.

The types of EIS being used on monthly basis included Institutional Websites 385 (66.7%), CD-ROMs 384 (66.6%), E-journals 328 (56.8) and E-books 313 (54.2%). The reasons for occasional use of Institutional Websites, CD-ROMs, E-journals and E-books could mean that these sources are not readily accessible for use. However, it was amazing to find that

Institutional or Government Websites was being used occasionally by the majority of journalists. This finding implies that these sites may not be regularly updated as expected.

### **Conclusions**

Given the findings that journalists' reliance on daily usage of different types of EIS for the accomplishment of work-related tasks and that availability, accessibility and ICT skills had positive correlation with EIS utilization, the study therefore, concluded that availability, accessibility and ICT skills are significant predictors of EIS utilization by journalists in Nigeria.

### **Recommendations**

Based on the finding that that availability, accessibility and ICT skills are strong predictors of EIS utilization, it is recommended that continuous efforts should be made and sustained in making EIS available to journalists and regular opportunities for general and specific ICT training be provided for journalists so as to improve on their ICT skills. In line with the finding that EIS accessibility had the highest correlation ( $r = 0.72$ ) with utilization, the proprietors of media houses as well as media librarians should note that accessibility is the key factor predicting usage and they should be more proactive in making EIS more accessible to journalists to facilitate a more systemic use. In relation to one of the key findings of the study that daily usage of EIS was limited to social media, e-mail and online forum, usage of EIS should be extended to other numerous types of EIS for journalists to enjoy maximum benefits of different types of EIS.

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