

User-friendliness, Aptitudes, and Utilization of Information and Communication Technology (ICT) Facilities by Library and Information Science (LIS) Students in Universities in Southern Nigeria

BY

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Abstract

The research explored how easily available, knowledgeable, and how LIS students in Southern Nigeria utilised ICT. A structured questionnaire was used to collect data, and the research's population consisted of 6, 247 regular LIS undergraduate students from 12 universities in Southern Nigeria. The sample of 624 respondents was chosen by means of typical random selection techniques. Four research questions were addressed in the research. Mean, standard deviation, percentage, and Pearson Product Moment Correlation Coefficient (PPMC) were applied to analysed the data gathered. The survey found that undergraduate students in universities had easy access to ICT tools. Accessibility had a substantial bearing on the utilization of ICT among LIS students in universities in southern Nigeria. Based on the findings, the research proposed, among other things, that ICT training and workshops be held for LIS students to advance their skills in by means of these technologies.

Keywords: Accessibility; Aptitudes; Deployment; Utilization,; ICTs

Introduction

Research and information seeking have become simpler for students and researchers in the 21st century, as a result of the progression of ICTs. The growing interest in ICT deployment, particularly in Education, raises questions about how ICT tools might be most effectively integrated to enhance educational activities. ICT has a major bearing on every industry underneath the sun, including education (Tikan, 2013). It affects all aspects of education, including instruction, assessment, and evaluation. ICT comprises of printers, plotters, photocopiers, duplicating equipment, computers, scanners, audiotapes and discs, video conferencing equipment, multimedia projectors, fax machines, overhead projectors and transparencies, and internet facilities. ICT is a broad term which encompasses three major concepts that should be understood independently (Womboh & Abba, 2008). The first concept is information, which can be defined scientifically as already been processed data that can be used for quality decision making. Second is communication which refers to exchange of information from one person to other while the researcher further defined the third concept technology as the application of scientific knowledge to creation of instruments that aid humans in their attempts address environmental risks and obstructions to comfort. ICTs are widely deployed in the Educational Sectors, especially by students to meet their information demands for learning, research, Self-development, and other activities, such as browsing the internet, sending e-mail, chatting, writing programs and coding, designing graphics, creating spreadsheets, shopping online, and conducting online research for textbooks and other academic information sources. However, Mahmood (2009) contended that rather than by means of ICT tools for instructional reasons, students mostly deploy them for non-educational goals including communication, entertainment, and word processing. Students researching Library and Information Science (LIS), like their peers in other disciplines, deploy ICT tools for a variety of purposes.

However, in order for LIS students to fully utilize ICT resources, they must have enough access points to these resources to suit their demands. According to Oriogu, Ogbuiyi, and Ogbuiyi, (2014) the handiness of ICT facilities in tertiary institutions do not necessarily translates to deployment. They may be present but access to them may be restricted for a number of reasons. Some technologies might be accessible and

available for students in ICT centers in higher institutions, but due to their poor circumstances, students might not be willing to adopt and use the available ICTs facilities.

The inability of LIS students to effectively deploy ICT to suit their diverse needs is another factor that influences how they deploy ICT. Students with poor ICT abilities have low self-esteem, which discourages them from by means of these tools (Cretchley, 2007). In order for students to succeed in their future Careers, they must be equipped with the necessary ICT skills. Scholars have frequently argued that the reason for the widening gap between developed and developing countries can be largely attributed to the level of ICT aptitudes of their graduates and work force.

The degree to which computers and other technology-related devices are freely deployed by as many individuals as possible to access and meet their information needs is known as ICT accessibility. According to a 2009 survey by Rotman and MCQuivey, several university libraries offer access to electronics resources via e-book reader like the Amazon Kindle and tablet PCs. However, a survey conducted by Oriogu, Ogbuiyi, and Ogbuiyi (2014) on the handiness and User-friendliness of ICTs in the provision of IR to undergraduates at Babcock University revealed that the majority of the respondents were on the opinion that the ICTs facilities were highly accessible, these include computers (87.8%), the internet (87.7%), photocopier machines (86.8%), e-mail (78.0%), Networks (74.7%), printers (69%). Additionally, their research stated that university students could not deploy CD-ROM, Scanners, or Projectors since they were not readily available.

Research on the degree of ICT deployment for student learning at tertiary institution in Ondo State, Nigeria was carried out by Akinfolarin and Rufia (2017). The research found that while students had regular access to email accounts and the internet for information hunt, they had limited access to computer systems, Public Address Systems (P.A.S), E-library resources, printers to print learning materials, Social Media Learning Platforms, and lecture notes that were stored on CD-ROMs. However, it was revealed that there are no Computer training programmes or projectors available for students on campus for academic purposes, Similarly, Raji and Godsy (2016) discovered that students regularly deploy the internet to send and receive emails, download music, communicate, and find out information for assignments, exams results, or University alerts.

ICT competency, as defined by UNESCO (2008), is the capability to deploy ICT for information gathering, processing, and presentation in support of activities among various clusters of people working toward common goals. ICT capabilities of LIS students may therefore be viewed as those pertinent skills and information that students need to learn to fully utilize the access to and deployment of ICT In line with this, Amoda and Odunaike (2014) discovered that students in Nigerian higher institutions lack basic computer literacy and familiarity with common software usage.

According to Abubakar (2010), some students who enroll in tertiary education do not have basic ICT skills, and this often manifests as a fear of technology. For some students, the prospects of using ICT tools or systems can be daunting or even frightening. This lack of basic ICT skills can make it difficult for these students to keep up with their peers and can impact their ability to participate fully in their education. The ICT (ICT) skills of Bangladeshi LIS undergraduates were investigated by Hossain and Sormunen (2019). The research results showed that students had good general computer and internet abilities. The students believe they are competent at common computer and internet routines but just average in advanced computer and internet activities as well as evaluating internet resources.

According to research by Wilson, Tete – Mensah, and Boateng (2014), tertiary students have the basic abilities and knowledge in the usage of a wide range technologies, programs (software and hardware). Fatima, Shafique, and Firdous (2012) studied the ICT competencies of LIS students in two Punjab library school. The scope of the study covers both the University of Punjab, Lahore (PU) and the Islamia University of Bahawalpur (IUB). The findings of the study revealed that LIS students of the University of Punjab, Lahore were slightly more competent in ICT than those at Islamia University of Bahawalpur. Also, students from Punjab, Laborer were more with the laboratory environment than those of Islamia University of Bahawalpur.

Udoh et al (2020) used a case study of two Federal University to investigate the digital skills of LIS undergraduate students in the use of electronic information resources. The Federal Universities investigated were the University of Uyo (UNIUYO), Uyo, Akwa Ibom State, and the Michael Okpara University of Agriculture Umudike (MOUAAU), Abia State both in Nigeria. The results revealed a Grand Mean of 2.62 compared to the benchmark mean of 2.50, showing that LIS students at the two federal Universities have slightly better-than-average digital literacy skills. The Literature review demonstrates that some studies concluded that university-enrolled LIS undergraduate Students had insufficient, or no general computer and internet abilities (ICTs) to complete their educational requirements.

The scope of the deployment of ICT has extensively been researched. According to Chong, et-al, and Daniel (2005), the majority of students at higher education institutions regularly utilize ICT for common computer programs including word processing, spreadsheet, database, and internet services. In their Research, Loren Cowez, et-al, (2014) stated that the usage of computers and the internet has increased dramatically in recent years. This is due to a variety of factors, including technological advances, the availability of high speed internet and the widespread adoption of devices like computers, smart phones and tablets. ICT tools are used by students for Academic purposes at universities all around the world. It is due not just to advances in computer technology but also a sharp drop in Computer prices and the widespread application of technology in daily life. Ezecheta (2022), a researcher from Rhema University in Aba, studied the handiness and deployment of ICT facilities by undergraduate students conducting research in Academic Libraries. The survey found that students made extensive deployment of ICT resources.

According to research by Wilson, Tete-Mensah, and Boateng (2014) on ICT tool utilization at the University of Ghana, Students had access to ICT facilities to support their learning needs, which enhanced the usage of these facilities. This implies that their access to ICT facilities encourage their usage of the facilities to meet their various needs. The results also revealed that 79.9% of the respondent had access to a laptop, while 4.3% of them did not have any access to ICT facilities in the University and 13.9% had access to digital Camera. Additionally, Dorup (2014) discovered that the majority of students have access to Computers in their on-campus residence halls and frequently deploy the internet, which is a prerequisite for fostering networking among students and lecturers as well as for collaborative learning. Dorup came to the additional conclusion that Students without access to Computers and the Internet were likely to fall behind their peers who did. There is a disparity between developed and developing countries in the accessibility, adoption and use of ICT which had created a digital divide in the population of access to ICTs.

Objective of the Research

This research's primarily goal is to examined User-friendliness, Aptitude and Utilization of ICTs by LIS students in Universities in Southern Nigerian. The purpose of this Research is to find out the following:

1. The Level of Accessibility of LIS students to ICT tools in the universities in Southern Nigeria.
2. The LIS Students' Aptitudes in the deployment of ICT
3. The degree of the Use of ICTs by LIS students' in the universities
4. The relationship between accessibility and the deployment of ICT by LIS Students in Southern Nigeria.

Research Questions

The Research provides answers to the following research questions:

1. What is the level of accessibility of LIS students to ICT tools in the universities in Southern Nigeria?
2. What is the level of ICT aptitudes of LIS Student?
3. What is the degree of deployment of ICT by LIS Students in the universities?
4. What is the relationship between Accessibility and deployment of ICT by LIS Students in Universities in Southern Nigeria?

Research Hypothesis

There is no significant relationship between accessibility and deployment of ICT by LIS Students in Southern Nigeria

Methodology

For the investigation, a descriptive survey design was adopted. The population Comprised 6,249 LIS undergraduates from 12 universities in southern Nigeria made up the research population deployment a simple random sampling method to choose 624 respondents. A structured questionnaire served as the data gathering tool. A few LIS and measurement and evaluation specialist validated the device. The instrument reliability was established by means of the Pearson’s product Moment Correlation Coefficient (PPMC), which produced a reliability rating of 0.90 and was deemed sufficient for this investigation. In the research four research questions were addressed, the data collected were advanced by means of mean, standard deviation, percentage and Pearson’s Product Moment Correlation (PPMC)

Result

Answering of the Research Questions

This section is on the analysis of data to answer the research questions raised in the research.

Research Question One: What is the level of accessibility of LIS Students to ICT facilities in library Schools in Southern Nigeria?

Table 1: Level of Accessibility of LIS Students to ICT Facilities in Library Schools

ICT Facilities	M	SD
Electronic Photocopier	3.00	3.00
Printers and Plotters	2.98	1.049
Duplicating Machine	3.16	1.115
Audiotapes and Discs	2.66	1.078
Computers	2.97	1.151
Scanners	2.61	1.150
Television Sets	3.08	836
Video Conferencing Facility	2.17	1.100
Multimedia projectors and Slides	3.07	1.037
Telecom Facility	2.03	853
Digital Cameras	2.87	1.038
Fax (facsimile) Machine	1.95	847
Overhead Projector Sand Transparencies	2.47	1.107
Internet Facilities	2.64	1.211
Criterion Mean = 2.50	Aggregate Mean= 2.71	

It can be concluded from Table 1 that LIS undergraduates in Southern Nigeria have a lot of access to ICT tools as implied from the aggregate mean there is 2.71, which is higher than the criterion mean of 2.50.

Research Question 2: What are the Aptitudes of LIS Students?

Table 4: ICT Aptitudes of LIS Students

Statement	Agree		Disagree	
	Freq	%	Freq.	%
Proficient in the deployment of Computer	457	73.7	163	26.3
Knowledge in electronic formats e.g. PDF, JPEG.	303	48.9	317	51.1
Working in interactive platforms e.g. video Conferencing, BBS, LISTSERV, chartroom etc.	168	27.1	452	72.9
Working in a network environment	115	18.5	505	81.5
Online acquisition procedures/techniques	79	12.7	541	87.3
Knowledge of database types	73	11.8	610	98.4
Online navigation techniques	10	1.6	610	98.4

Table 2 provides details on the ICT skills that students researching LIS at the universities included in this research have. On the other hand, a minority of respondents agreed that they possessed low proficiency, ranging from online navigation techniques 10 (1.6%), knowledge of database types, online acquisition proceeding/techniques 79 (12.77%), etc. The majority of respondents, as shown in the table, agreed that they possessed high proficiency in ICT skill, including computers 457 (73.7%), and knowledge of electronic formats 303 (48.9%).

Research Question 3: What is the degree of the deployment of ICT by LIS students in the universities?

Table 3: The Degree of Deployment of ICT by LIS Students

Deployment of ICT	M	SD
For school registration (Café work)	2.96	.9642
To play games	2.90	1.001
To download music	2.81	1.070
To watch movies online	2.67	1.071
For assignments	1.50	711

Criterion Mean = 2.50 Aggregate Mean= 2.67

Table 3 demonstrates that, with an aggregate mean of 2.67, greater than the criterion mean of 2.50, it is clear that university students researching LIS make extensive deployment of ICTs. This indicates that the level of utilization of ICT is implied by its widespread deployment.

Hypothesis

There is no significant relationship between accessibility and the deployment of ICT by LIS students in universities in Southern Nigeria?

Table 4: Correlation on the Relationship between Accessibility and deployment of ICTs among LIS Students

		Accessibility	Deployment of ICTS
Accessibility	Pearson Correlation	1	-052
	Sig. (2-tailed)		.192
	N	620	620
Deployment of ICTs	Pearson Correlation	-052	1
	Sig. (2-tailed)	.192	
	N	620	620

a=0.05

The association between accessibility and ICT deployment among LIS students at universities in Southern Nigeria is seen in Table 4 the correlation coefficient is -052 according to the result, and 192 is considered significantly more important than the alpha threshold of 0.05. Since there is no correlation between accessibility and ICT deployment among LIS students in universities in Southern Nigeria, the null hypothesis that there is no correlation is not rejected. It is concluded that students in universities in Southern Nigeria do not significantly differ in their deployment of ICTs based on accessibility.

Discussion of Findings

The results showed that LIS students in Southern Nigerian universities have significant levels of access to ICT resources. This result is consistent with a research by Oriogu, Ogbuyi, and Ogbuyi (2014) that found respondents believed ICT tools were very accessible.

The results showed that the majority of respondents concurred that the only ICT skills they possessed were those related to computer deployment. This result suggest that the respondents had limited proficiency by means of ICT tools. This result is consistent with the majority of earlier research, including those by Wilson, Tete-Mensah, and Boateng (2014), Abubakar (2010), Ozoemelem (2009), Amoda and Odumaike (2014), and Ozoemelem (2009), which found that students in tertiary institutions lack ICT abilities, which has significantly hindered their usage of these tools. However, this research's findings did not support Hossain and Sormunen's (2019) assertion that LIS students are proficient with computers and the internet. This conclusion suggests that actions need to be taken to advance LIS students' aptitudes to advance their skills in by means of these technologies to suit their educational needs.

Based on the findings, the results showed that LIS undergraduates in Southern Nigeria have easy access and use of ICTs facilities to a large extent.. This result is consistent with research by Chong, Sharaf and Daniel (2005), Lorencowicz, et-al (2014), Akinforlar in and Rufai (2017), and Raji and Godsy (2010), all of these studies conducted showed that that students used ICTs facilities frequently for gathering information for assignments, to check exam results or notification by a university, sending and receiving emails, downloading music and chatting.

The correlation coefficient is -052 according to the results, and the significant level is .192, which is higher than the alpha level of 0.05. As a result, it is acknowledged that there is no significant relationship between accessibility and ICT deployment among LIS students in universities in Southern Nigeria. It is concluded that students in universities in Southern Nigeria do not significantly differ in their deployment of ICTs based on accessibility. This result is consistent with the study of Wilson, Tete-Mensah, and Boateng (2014), which found that undergraduate students' deployment of ICT facilities is influenced by accessibility. This research suggests that a rise in accessibility may not necessarily translate into a rise in student utilization of ICT facilities.

Conclusion

In the twenty-first century, having proper understanding of ICTs can help students more effectively and efficiently as a valuable skills in academic pursuit. Students who are skilled in ICT will be adopt at

navigating correctly and easily satisfy their numerous educational, informational, self-development, and leisure. The current research studied how Southern Nigerian LIS students deploy ICT resources and looked at their skills and accessibility. The research was guided by four research objectives and research questions. There is little question that Southern Nigerian university students researching LIS have easy access to ICT resources that can meet their educational demands. The research found that the Southern Nigerian LIS students had little experience by means of ICTs and were only familiar with computers and electronic formats, which had an adverse effect on their academic performance and general information-seeking by means of these tools. The study also revealed how extensively the undergraduates' use ICTs. Accessibility and competency are crucial for the complete and effective ICT deployment that meets the demands of students in universities.

Recommendations:

Based on the outcomes the following recommendations were raised:

1. Trainings and workshops on ICT should be organized by Tertiary Education Trust Fund (TETFund) and University ICTs centers for LIS Students to boost their aptitudes in the use of ICTs facilities.
2. Every Library School should have a computer lab attached to their departments to enhance student degree of the deployment of these tools for their various needs.
3. Government and tertiary institution management should make ICT facilities available and accessible within the campus environment to boost students' deployment of these facilities for their educational and personal needs.

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