ICT COMPETENCE OF POSTGRADUATE STUDENTS IN THE USE OF ELECTRONIC LIBRARIES AS DETERMINING FACTORS FOR THE CHOICE OF RESEARCH TOPICS AND RATE OF COMPLETION

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Abstract

The study was on ICT competence of Postgraduate Students in the use of Electronic Libraries as determining Factors for the Choice of Research Topics and rate of Completion. The main objective of the study was finding out the influence or place of access to E-Libraries on the length of time spent or progress made on respondents' programme and to examine the ICT competence on the use of Electronic Libraries as factors influencing postgraduate students of selected Universities in Nigeria's choice of research topics and the rate of completion of the programmes. The study adopted quantitative research methods and specifically a survey research design. The population comprised the postgraduate students of four federal universities from the south-west geopolitical zone of Nigeria. Questionnaire was used as instrument for data collection. Descriptive statistic was used to analyze the data collected. Findings show that a little above average [(226 (56.1%) and 221 (57.1%)] of the population of respondents from two of the institutions examined were competent, while the other two had excellent percentages [(167 (80.7%) and 173 (77.6%)] of the total respondents being competent in the use of ICT, which consequently reflected on their use of Electronic Libraries right from the stage of choosing research topics, through to the actual research processes and its completion. The paper concluded with recommendations that, since it was established that the postgraduate students were found to be competent in the use of E-Libraries, university libraries are encouraged to explore avenues of making richer, robust, current and scholarly electronic information resources; especially fee-based or subscribed ones available for use with little or no stress.

Key words: Postgraduate Students, Postgraduate Studies, Electronic Information Resources, Research, Research Topics, ICT Competence, Electronic Libraries, Postgraduate Degrees

Introduction

In the current world of digital and networked information, the library's mission to provide access to information will not fundamentally change but the means by which the mission is achieved has changed. This has made the prediction of Ghikas in Nazim, and Saraf, (2006) that the twenty-first century library collection will be an accumulation of information carriers both actual (locally owned) and virtual (electronic accessible) becoming a reality. Consequent upon this is the provision of modern technology-based information resources and services such as the virtual and electronic library which has become the trend in library services globally. Closely

related to this is the ability of users to possess requisite skills that will enable them to avail themselves of these opportunities in order to effectively use and derive maximally from these resources and services. Electronic Libraries have exploded in popularity and use. They can, and do enable innovation in teaching, learning and research and they increase timeliness in research as well as increase discovery and creation of new fields of inquiry (Henderson & MacEwan in Renwick, 2005). Electronic libraries have made information erstwhile accessible traditionally or manually available real-time beyond space and boundaries with little or no restrictions provided copyright and information ethics rules are not violated.

Ankrah and Atuase (2018) defined an electronic library as a collection of information resources that can be accessed, retrieved, stored and used through electronic means. Electronic libraries help to improve the quality of teaching, learning and research in the university. Consequently, the new emerging technology that is the trend today is the use of the online (e-library) to do research on a wider scale (Ramayah in Lawal, 2010).

Postgraduate (PG) students, also referred to as graduate students in some climes are students who are studying for a second or higher degree in the university. In other words, they are referred to as research students based on the assumption that serious research work begins at this level. To support, enhance and fast track their researches right from when research topics are conceived, through to the period of writing to completion, postgraduate students need access to electronic information resources to keep up to date with researches done in their respective fields as basis for situating their own researches. This is very essential as more scholarly and recent information resources abound electronically. Though they tend to use only what is easily accessible through the conventional search engines, thereby reducing their visits to the traditional libraries, access to some fee-based databases and other rich and highly rated electronic information resources are made available by libraries through licenses negotiated by them. Hence, electronic information resources (both resident in traditional libraries and online) will continue to be relevant to researchers.

Buabeng-Andoh (2012) in Ridwan, Felix and Mohammed (2019) defined ICT competence as being able to handle a wide-range of computer applications for various purposes. Thus, how users attain these skills and competence depends on many factors, such as their disciplines, academic ability, ages, access (hardware and location) to electronic resources, and training. Factors motivating use can be, for example, what level of importance they allocate to e-libraries, how useful they have found them, and for which purposes they use them. However, this usefulness covers the ability of the resources to help in supporting postgraduate programmes.

Statement of the Problem

It is a known fact that research worldwide is changing rapidly. The use of ICT and the Internet are seen as important parts of research strategies in universities. Some are seeking to become global, virtual institutions; others are using the Internet as part of a mixed economy, combining traditional modes of research with online research processes. Also, if higher degree research is to expand within a framework of constrained costs, this might be achieved by an increased emphasis on web-based and real time electronic resources, this is because, postgraduate students will desire to research topics successfully with minimal frustration.

Due to constrained resources and financial inadequacies, University Libraries in Nigeria that are supposed to be the hub of research activities are not well-equipped with current materials. As a result of this, it has been observed that researchers, most especially postgraduate

(PG) students are most of the time discouraged. Those putting in for Masters' and Doctoral degrees spend unjustifiably long time on the program. The rate of completion has not also been of encouragement.

The National Universities Commission (NUC), being the regulatory agency for University Education in Nigeria, having one of its mandates to be the definition and maintenance of academic standards, set a bench mark of a minimum of 4 semesters and a maximum of 6 semesters, a minimum of 6 semesters and a maximum of 8 semesters for a full time and Part-time Master's Programme in universities in Nigeria, respectively. However, for extension beyond the specified maximum periods, special permission of the Board of School of Postgraduate Studies is expected to be sought. It is against this background that the study was conducted to examine the ICT competence of Postgraduate Students on the use of Electronic Libraries as determining Factors for the Choice of Research Topics and rate of Completion.

Objectives of the Study
Stated in specific terms, the Study was aimed at:
1. examining the competence of the respondents in the use of ICT and E-Libraries for research purposes and other propelling factors that would enhance their competence in the use of E-Libraries ;

2. finding out the influence or place of access to E-Libraries on the length of time spent or progress made on respondents' programmes;

Literature Review
While a couple of researches have been conducted on ICT competence on the use of electronic libraries by postgraduate or graduate students, little has been done specifically on how these factors rub on research topic selection and rate of completion of postgraduate studies.
The research world is changing rapidly. The use of ICT and the Internet are seen as important parts of research strategies in universities. Some are seeking to become global, virtual institutions; others are using the Internet as part of a mixed economy, combining traditional modes of research with online research processes. Also, if higher degree research is to expand within a framework of constrained costs, this might be achieved by an increased emphasis on web-based and real time electronic resources, this is because, postgraduate students will desire to research topics successfully with minimal frustration.

To undertake postgraduate studies therefore, there is a need for extensive literature search which brings students to rely on the electronic resources provided by the university library. As a matter of fact, the provision of electronic information resources in libraries in Nigeria gives access to vast collections of digital books and electronic journals for postgraduate students. Electronic Libraries powered by Internet-enabled information resources and resources offer students real chances for a range and various choices of research topic, seeing that a good research stems from the choice of a researchable topic. It also lend itself to another crucial aspect of the research process, review of current and related literature which enable the researcher to establish the relationship that exist between the current research and the previous ones, and what has either been done or not been done in his/her area of research interest. Promotion of access to current electronic information resources among postgraduate students enhances the rate at which their programmes of studies are completed.

A lot of universities in third world countries, including Nigeria are gradually realizing the importance of employing the Internet and other electronic resources provided by the electronic libraries as a strategic tool for enhancing research Nwalo (2002). More so, that they are under tremendous pressure to change. Hence the emphasis laid by some postgraduate departments of Universities in Nigeria on the need for PG students to dwell more on the citation of Internet and electronic sources in their review of related literature than conventional sources of information and also to explore the use of the multimedia projector for delivering research seminars (personal account of the researcher). This is further buttressed by the efforts of some Nigerian Universities in acquiring electronic databases, striving to get connected to the Internet to make timely, current and up-to-date information available and establishment of electronic libraries where these resources can be made available and accessible to their students.

Head and Eisenberg (2010) reported in the book, *Truth Be Told: How College Students Evaluate and Use Information in the Digital Age, and found* 84% of the students surveyed agreeing that the most difficult part of the course-related research process was getting started, and 66% agreed that choosing a topic was the most difficult (p. 3). While it is clear that students struggle with this aspect of the research process, libraries are not usually consulted at this point. Hence, they both concluded that,

> *Simply put, we are proponents of rethinking and revitalizing library*
> *instruction so it gives students guidance for overcoming what many*
> *reported was the most difficult part of the entire process—getting started*
> *and developing a topic that carries them through the entire research*
> *process, in addition to using the best sources. (p. 39).*

McKenna and McKenna (2000) suggested that the library should offer services that would help postgraduate students in selecting research topics to help guide them through the massive amount of information, especially information found neither on the Internet nor in electronic form. Figuring out which information to use can be a hindrance for students when they are given the opportunity to choose their own research topics.

Lundstrom and Shrode (2013) carried out a research on librarian's role in undergraduates of Utah State University's topic selection and found that, some students believed that the Library and librarians could help with topics, while others believed that the library and librarian's main role begins after students have chosen a topic, mainly helping them find books and articles. One of the students studied summed up the library and librarian's role this way: "They're like a tour guide for research." While another student said librarians could show you places to go and how to find books. Another findings of the role of the electronic library in the progress of postgraduate's research carried out by Rasul and Singh (2010) show that the majority (90.1%) of respondents acknowledged the important role of library in facilitating research, and 72.5% of the respondents were satisfied with the current role being played by their university libraries.

The results of Yebowaah (2017)'s findings also indicated that students use both library and internet resources for their academic work. However, the use of internet is higher than that of the University's Library resources. This is attributed to the weakness associated with library use such as servers being down, connection not available, and poor electricity that are found with university's libraries are not found with private internet sources. As a result, students choose information format over substance and convenience of access over accuracy.

Graduate studies, being the most important tool for grooming academic manpower need the provision of and utilisation of electronic information resources, for the use of graduate students which can only be made available through licenses negotiated by university libraries due to the cost of acquisition which often times individual students are not able to bear.

However, availability of these resources does not necessarily translate to its adoption and use by PG students for their research endeavors. This boils down to the skills and competence needed to be able to use them. Hence, ICT competence is paramount to the use of electronic resources and libraries. This is in consonance with Abe (2006) who observed that availability of Information and Communication Technology (ICT) and E-Libraries) without the requisite competence to make use of them does not necessarily lead to their immediate application. Jegede (2007) also submitted that accessibility to computers (E-Libraries) does not necessarily enhance its usage.

The ICT competence needed for postgraduate students to be able to use an E-Library are the ability to develop and make use of search terms and search strategies, using the basic and advanced search platforms peculiar to the electronic database of choice effectively, ability to be able to download full texts of E-Resources, use them real-time, attach to emails or store in either online or offline drives for future use after logging out of the search environment of when working offline. The ICT competence required covers computer and digital literacy.

Millawithanachchi (2012) investigated the popularity and utilisation of e-resources among postgraduate students in universities, he used factor analysis to identify nine factors which are critical success factors on the use of e-resources, among which are, technology identified by the postgraduates as the most critical factor in using e-resources. Others are library support, information literacy, computer competency, usefulness and users' attitudes.

PG students' attitude and competence in the use of ICT and electronic resources is an important key issue. It has been observed that most graduate students especially those whose subject disciplines does not tend toward the use of computers and related technologies, sees the need to make use of the web only when they embark upon their PG studies. This makes it the first time of such students to make use of the web, which could account for the low level of Information Technology (IT) literacy, competence and readiness to adopt the web during their research work or postgraduate studies. Ryan, Scott, Freeman, & Patel (2000) have rightly reported that adequate prior ICT competence is needed by any student that intends to make use of the Internet for research purposes. He went further to report that, ICT knowledge, skills and competence are needed for an individual to effectively make use of the Internet for any serious work, especially education and research. Abykenovaa, Assainovaa, Burdinaa, Murphyb, and Abibulayevac (2016) in an analysis of the information and communications technology competencies (ICTC) of Master's degree students of Kazakhstan reported that the majority of Master's degree students have a low level of ICTC. Abubakar and Adetimirin (2015) also found postgraduates' computer literacy level to be average (56.3%) as they used only few of the e-resources provided by their libraries and the frequency of such usage was also found to be low. In a related study of Information literacy skills, computer self-efficacy and e-resources use by postgraduate students in private university libraries.

This is in variance with the submission of Abe (2006) that except for respondents in computer science departments, there was a poor turn over of positive responses from the faculty of science on the ability to make use of ICT. However, she further found out that the humanities

and technology faculties gave positive responses towards competence with the use of ICT (web and web-related technologies).

Completing a postgraduate degree in record time has recently become a herculean task, which could either, be as a result of a number of factors, ranging from personal to institutional, financial to the research environment. Pitchforth, Beames, Thomas, Falk, Farr, Gasson and Thamrin (2012) used a complex systems approach to find the factors affecting timely completion of a PhD in an Australian University and found across all participants that, personal factors of the students, the research environment, the research project, and incoming skills to be the factors that were most directly influential on the timely completion of the programme.

Nnebedum and Obuegbe. (2021) similarly found, among others that supervisors and students' related factors contributed to the delay of postgraduate students' completion of their thesis/dissertation in federal and state universities of south east, Nigeria.

In another related study, Heide, Pante, Fleig, Leis, Fritz, Juenger, and Fischer (2019) found, among other things, the factors Influencing the successful completion of a master's dissertation or PhD thesis, to be a little difficulty experienced when choosing the research topic, ability to retain the original topic chosen, a general support received by the student from the institution of study, timely feedback from the research advisor or supervisor, and adequate provision of financial and human support.

Methodology

The research design adopted for this study is survey. Survey research is a systematic and comprehensive collection of information that reflects the opinions, attitudes, feelings, beliefs and behaviors of people on an issue. Postgraduate (PG) students (Master's, M.Phil and Ph.D) of four federal Universities in Nigeria are the target population of this Study. Since the population of the postgraduate students in the chosen universities was not evenly distributed, the purposive random sampling technique was adopted. The research instrument used for collecting data was questionnaire, due to the simple fact that it is more economical in terms of time, effort and money. Useable data retrieved were analysed using descriptive statistics such as frequencies and simple percentages.

Result and Discussions

The sample size comprised of 1,500 PG students selected from eight (8) faculties of the sampled universities, thus: University of Ibadan (UI) -500, Obafemi Awolowo University, Ile-Ife (OAU) -500, Federal University of Technology, Akure (FUTA) and University of Agriculture Abeokuta. (FUNAAB) -250 respondents each. A total of 1,220 copies of useable questionnaire were retrieved which represents thus: UI -403, OAU -387, FUTA -207 and FUNAAB -233 respectively, all representing a 81.3% response rate.

Demographic information of the respondents shows that, a larger percentage (57.3%, 62.8%, 54.6% & 60.1%) of them from each of the examined university falls within the age range of 35 and 45 years old, more than half (55.6%, 55.0%, 54.6% & 54.3) of them are male, except for the FUTA where 49.3% of them are enrolled for the degree of Masters the other three universities have more than half (50%) of the respondents enrolled for the same degree of Masters [53.6% (UI), 50.9% (OAU) & 56.5% (FUNAAB)], As regards the marital status of respondents, more than half (50%) of them (57.3%, 60.5%, 54.6%, & 54.3%) are married.

Implications of this statistics is that, there were more males enrolled for post graduate studies in the universities examined than females, which is in tandem with the findings of Adeyemi and Akpotu (2004); Agu and Omenyi (2013) whose study indicated that in spite of the profuse efforts made so far to bridge the gender gap in education access in Nigeria, the gap keeps widening in favour of the male gender. It can also be inferred that the age range for postgraduate studies as found by the study is between the mid 30s and mid 40s, and also degree of Masters recorded more enrolment than that of Doctor of Philosophy, further, more married people are found to be registered for postgraduate studies than singles.

Table 1: ICT Skills and E-Library competence of Respondents

ICT Skills and E-Library competence of Respondents	UI			OAU			FUTA			FUNAAB		
	HC	AC	NC	HC	AC	NC	HC	AC	NC	HC	AC	NC
Use the computer and its peripherals	226 (56.1%)	98 (24.3%)	79 (19.6%)	221 (57.1%)	89 (23.0%)	77 (19.9%)	174 (84.1%)	29 (14.0%)	04 (1.9%)	193(86.6%)	21 (9.4%)	09 **(4.0%)**
All manners of Word processing skills	**231 (57.3%)**	**95 (23.6%)**	**77 (19.1)**	**247 (63.8%)**	**73 (18.9%)**	**67 (17.3%)**	**187 (90.3%)**	**13 (6.3%)**	**07 (3.4%)**	**195 (87.4%)**	**17 (7.6%)**	**11 (5.0%)**
Navigate through online information environment	**221 (54.8%)**	**115 (28.5%)**	**67 (16.6%)**	**255 (65.9%)**	**74 (19.1%)**	**58 (15.0%)**	**173 (83.6%)**	**19 (9.2%)**	**15 (7.2%)**	**191 (85.7%)**	**19 (8.5%)**	**13 (5.8%)**
Download all formats of information from on/offline environment	**219 (54.3%)**	**121 (30.02%)**	**63 (15.6%)**	**243 (62.8%)**	**91 (23.5%)**	**53 (13.7%)**	**181 (87.4%)**	**17 (8.2%)**	**09 (4.3%)**	**203 (91.0%)**	**09 (4.0%)**	**11 (5.0%)**
Save downloaded information into	**222 (55.1%)**	**124 (30.8%)**	**57 (14.1%)**	**224 (57.9%)**	**101 (26.1%)**	**62 (16.0%)**	**201 (97.1%)**	**04 (1.9%)**	**02 (1.0%)**	**186 (83.4%)**	**21 (9.4%)**	**16 (7.2%)**

different storage media or drives												
Use different apps to access information	183 (45.4%)	167 (41.4%)	53 (13.2%)	209 (54.0%)	107 (27.7%)	71 (18.3%)	199 (96.1%)	05 (2.4%)	03 (1.5%)	183 (82.1%)	17 (7.6%)	23 (10.3%)
Print out needed information	169 (41.9%)	188 (46.7%)	46 (11.4%)	161 (41.6%)	167 (43.2%)	59 (15.2%)	188 (90.8%)	13 (6.3%)	06 (2.9%)	199 (89.2%)	14 (6.3%)	11 (5.0%)

Key: HC-Highly Competent**, AC-**Averagely Competent**, NC-**Not Competent

Analysis of data on the ICT competence of respondents (Table 1) from UI shows that, on the average, the respondents are highly competent in the use of the computer and its peripherals (56.1%), the use of all manners of Word processing skills (57.3%), could navigate through online environment (54.8%), could download information in all formats either from on or offline sources (54.3%), they could save downloaded information into different storage media or devices (55.1%). While on the other hand, percentage responses below averages were recorded for the respondents' ability to use different apps to access information (45.4%) and to also print out needed information (41.9%) respectively.

For OAU, the percentages of respondents who were found to be highly competent in navigating through online environment (65.9%), in the use of all manners of Word processing skills (63.8%) and those who could download information in all formats either from online or offline sources (62.8%) were well above average.

In contrast to UI and OAU, for FUTA, the percentage of respondents who are highly competent in the use of ICT were way above average and listed thus; they could save downloaded information into different storage media or devices (97.1%), they have the ability to use different apps to access information (96.1%), they could print out needed information (90.8%), use all manners of Word processing skills (90.3. %), could download information in all formats either from online or offline sources (87.4%), could use the computer and its peripherals (84.1%) and could navigate through online environment (83.6%).

As observed with FUTA, results from FUNAAB; an equally specialised university; but of Agriculture, recorded high percentages for respondents who are highly competent in the use of ICT as follows, the use of the computer and its peripherals (86.6%), the use of all manners of Word processing skills (87.4%), could navigate through online environment (85.7%), could download information in all formats either from on or offline sources (91.0%), they could save downloaded information into different storage media or devices (83.4%). While on the other hand, percentage responses below averages were recorded for the respondents' ability to use different apps to access information (82.1%) and to also print out needed information (89.82) respectively. This finding is corroborated by the studies of Abubakar and Adetimirin (2015); and Adeniran (2017) who found postgraduates' computer literacy level to be of average and that, there was a significant positive correlation between ICT competence and self-efficacy with students' use of electronic libraries.

Table 2: Access to E-Libraries and progress of postgraduate programmes

E-Library resources	UI			OAU			FUTA			FUNAAB		
	HP&AE	NSE	CS	HP&AE	NSE	CS	HP&AE	NSE	CS	HP&AE	NSE	CS
E-Library resources (E-Books, E-Journals, E-Databases, E-Abstracts, E-Indexes, E-dissertations, E-Theses, E-Bibliographies, E-Catalogues)	396 (98.3%)	3 (0.7%)	4 (1.0%)	374 (96.6%)	9 (2.3%)	4 (1.1%)	197 (95.2%)	8 (3.9%)	2 (1.0%)	215 (96.4%)	5 (2.2%)	3 (1.3%)
Internet Connectivity to access E-mails, E-Professional Groups, Webinars	400 (99.3%)	3 (0.7%)	0 (0%)	377 (97.4%)	7 (1.8%)	3 (0.8%)	201 (97.1%)	4 (1.9%)	2(1.0%)	213 (95.5%)	7 (3.1%)	3 (1.3%)
On/Offline Open Access resources	399 (99.0%)	3 (0.7%)	1 (0.3%)	381 (98.4%)	4 (1.1%)	2 (0.5%)	199 (96.1%)	3 (1.4%)	5 (2.4%)	216 (96.9%)	5 (2.2%)	2 (0.9%)
Subscription-based E-Resources	298 (73.9%)	93 (23.1%)	12 (3.0)	350 (90.4%)	33 (8.5%)	4 (1.1%)	103 (49.8%)	93 (44.9%)	11 (5.3%)	199 (89.2%)	15 (6.7%)	9 (4.0%)

Key: HP &AE-Hastened positive & appreciable effect, NSE: No significant effect, CS-Can't say

Effect or role of access to E-Library is reported. Aside FUTA, which has as low as 103 (49.8%) respondents indicating that access to Subscription-based E-Resources hastened, have positive and appreciative effects on their researches, there were as high as 99% of respondents form the UI, OAU and FUNAAB who agreed that the various listed E-Resources in the table have hastened and impacted their research works positively.

Thus, on an acceptable level, findings from the study has shown that the examined post graduate students possessed a high level of ICT competence that could enable them access to the e-library. However, this is in sharp contrast with the findings of Abykenovaa, Assainovaa, Burdinaa, Murphy, and Abibulayevac (2016) who reported that, majority of Master's degree students of Kazakhstan have a low level of information and communications technology competencies ICTC.) Furthermore, results also show that the PG students do access Internet connectivity, mails, Webinars and professional groups as reflected by the responses presented. This also corroborates Ryan, Scott, Freeman, and Patel (2000); Burns, Ferris, and Liatsopoulos (2011) submissions. The result also showed that postgraduate students do access E-Library resources comprising E-Books, E-Journals, E-Databases, E-Abstracts, E-Indexes, E-dissertations, E-Theses, E-Bibliographies and E-Catalogues as rightly showed especially for education and research purposes. However, high levels of competence were recorded form respondents form FUTA and FUNAAB (specialised universities of technology and agriculture) respectively. Competence was found to be of average percentage amongst respondents from UI, while it was a little above average that was recorded from OAU.

This finding might suggest the latter (FUTA and FUNAAB) being specialised universities, specifically; FUTA, running programmes related to technology to be the contributory factor to their excellent levels of the postgraduate students' competence in the use of ICT. Most importantly, student who aspires to study in a university of technology in Nigeria are expected to be versed in technology-based subjects right from their secondary school levels.

Other findings from the four examined universities show very high percentages (aside FUTA where a very low percentage response was recorded for subscription-based E-Resources only) of respondents agreeing that, the use of the E-Library has hastened and impacted their research works positively which is consonance with the findings of Ossai-Ugbah, (2018) who established that, there was significant relationship between the high academic performance of students with automated library access and those without automated library access. The finding is also in consonance with that of Golwal, Sonwane & Vaishnav (2008) in Okite-Amughoro, Makgahlela and Bopape (2014) and Okite-Amughoro, Makgahlela and Bopape (2014) who respectively observed in their own study that electronic resources have become the most popular tools for research and academic activities and also that it is apparent that the use of EIR has a positive impact on academic research activities.

Summary of findings

The study on the ICT competence of Postgraduate Students in the use of Electronic Libraries as determining Factors for their Choice of Research Topics revealed the level of the ICT competence of the postgraduate students of the examined federal universities, especially students from specialized universities (FUTA and FUNAAB). The study also established a positive correlation between access to E-Libraries, choices of research topics.

Conclusion

The return rate of the questionnaire administered on the PG students examined was encouraging. As found by the study and as indicated in the literature reviewed, the benefits accrued from the use of E-libraries cannot be over-emphasized. E-libraries improve the quality of university education and scholarly research and enhance teaching and learning. If the qualities of research must be improved especially in this technology era; then, there is a need to invest in Electronic resources and encourage its use among researchers and scholars. Encouragingly, this study has established that ICT competence of the PG students examined and their levels of utilization of electronic resources are high. Also, that university library is not relenting in their efforts of making electronic resources available to their users.

Recommendations

In recognition of quality and real-time research and based on the outcome of this study, the following recommendations emanating from the findings of the study will be useful:

1. Since the postgraduate students were found to be competent in the use of ICT skills which enhanced their abilities for accessing and using E-Libraries, University libraries should step up on the provision of 'seamless' access to electronic resources. In addition, and in line with the constant development in the field of ICT, libraries should put up a series of periodic training on emerging ICT skills needed to access the electronic information resources.

2. Postgraduate schools should come up with stringent policies and measures that would make aspiring students to be versed and skilled in ICT and the use of E-Libraries and also make use of same right from the beginning of their studies. This would enhance an early completion of the postgraduate programme.

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