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Accessibility and Postgraduate Students Use of Electronic Resources in University of Cape Coast

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ABSTRACT

The study specifically targeted the first year postgraduate students of UCC. Usage, usefulness or importance and problems encountered when using electronic resources were explored. The sampling technique that was used is stratified random sampling. This study used structured questionnaires as the main data collection instrument. Questionnaire was administered by the researchers themselves and Statistical Product and Service Solutions version 21.0 was used for the analysis. The data collected for the study were analysed using descriptive statistics. The major finding of the study is that majority of post graduate students access electronic resources both on and off campus. Also, the results showed that academic databases and Dspace were useful for academic work. Some of the major problems respondents indicated using electronic resources includes: inadequate computers in the library, poor internet connectivity, power outages, and insufficient search skills. A number of recommendations were put forward for improvement of library use but the most prominent suggestion was that Internet connectivity and power generation should be improved for better services.

Keywords: *Accessibility, Postgraduate Students and Electronic Resources*

INTRODUCTION

The university as an institution is generally regarded as a custodian of knowledge where students from different disciplines acquire knowledge and skills for self-development. Acquisition of knowledge is necessary for greater understanding and participation in community affairs and to prepare one for future. The university could be regarded as a preparatory ground for creativity and independent thinking. According to Oketunji (2005), university contributes towards the solution of problems and to the gathering, analysis and interpretation of facts to solve problems.

The achievements of the goals of the universities depend to a great extent on the level of services, accessibility and resources provided by the university library. The university Library, which is commonly referred to as the nerve centre of the university is primarily set up for the achievement of the university's set goals and objectives by providing information materials and services which satisfies the information needs of the entire university community. Conversely, ordinarily providing these resources without access points like Computer as well as skills required for its use might be tantamount to information availability without accessibility. Seth and Parida (2006) and cautioned that availability of information resources and services does not automatically translate to information accessibility and use.

Accessibility refers to openness, convenience, ease of locating and proximity to information resources. Access to information is important because except an information source is made accessible to its users, it cannot be used.

Jimba and Atinmo (2000) maintain that accessibility is about being able to use what is available when it is required. Accessibility of information materials is one of the prerequisites of information utilization by its users. Resources may be available in the library and even identified bibliographically as relevant to one's subject of interest, but the user may not be able to lay hands on them because of accessibility problems.

Electronic resource for academic pursuits has become indispensable due to its overwhelming advantages such as ease of accessibility, flexibility, real time delivery, content, and largely remote access. In contemporary library practice, information needs of learners and knowledge seekers are met through a plethora of

information sources especially with Electronic Information Resources (EIRs), dominating as a result of their ability to be accessed even remotely. University libraries specifically provide these resources to cater for the academic needs of the university community. Postgraduate students, as part of the university community, are allowed unrestricted access to these resources.

These resources give room for current and up-to-date information to be accessed easily, timely and remotely without compulsory face to face contact with the provider as in traditional librarianship (Ukachi, 2013).

Obviously, the basic aim of providing electronic information resources by university libraries in Ghana is to ensure that all categories of students have access to firsthand information characterized by being timely, up to date, easy to access and, even remotely.

Adewale (2006) and Aliyu (2004) highlighted the relevance of the university library in actualizing the goals of the university by stating that the library is the heart of any academic institution and its objectives revolve round the institution's objectives.

The library's provision of information and services is not expected to be limited to immediate needed information but to encompass the provision of anticipated information.

Majority of universities and other tertiary institutions have embraced and integrated electronic sources in their library collection. For example the Sam Jonah library of the University of Cape Coast (UCC), with the support of the Consortium of Academic and Research Libraries in Ghana (CARLIGH) has started the digitization of its collection so that its students can have easy access to these electronic resources.

Obviously accessibility constraints that could be experienced in the use of electronic resources include inadequate provision of infrastructure, Internet connection problem, online database subscription problem; library electronic resources use policy and indifference behaviour of staff towards assisting users in retrieving or accessing these information. Traditionally, academic institutions have provided more (print) than electronic resources. However, technological advancement has brought in its wake new ways of accessing information such that increasing number of users turn solely to electronic resources rather than print resources to satisfy their information needs.

Academic institutions like Universities are therefore, obliged to provide electronic resources to faculty, colleges and students for teaching, learning and research purposes. Electronic resources have become important additions to academic library resources and Universities are increasingly allocating huge sums of money for the acquisition and easy accessing of electronic resources. The question is whether the extent of use of these electronic resources by its users justifies the huge sums of money invested by these academic institutions.

Research Questions

To this end, answers to the following research question were sought:

- Where does postgraduate student access electronic resources?
- What are the types of electronic resources that are useful to postgraduate students?
- What problems are encountered in the use of electronic resources by postgraduate students?

Review of Related Literature

The purposes for students' use of electronic resources revealed in the literature are mostly academic. They include for research and completion of assignments. In a study to investigate the purpose of use of electronic resources by 200 computer engineering students of the Nanyang Technology University (NTU), by Majid and Tan (2002) reported that postgraduate students use electronic resources for coursework, (56.7%), project work (43.0%) and assignments (34.4%).

Another study by Zhang, Ye and Rao (2011) indicate that, the purpose of using the National Science and Technology Library (NSTL) electronic resources include scientific research, teaching and self-development. Zhang and Haslam (2005) also mentioned that electronic resources are used for enhancing and promoting academic pursuit of students and faculty. Thus institutions spend a lot of their library's budget in acquiring resources and infrastructure to achieve this effort. Idiodi (2005) in her study, 'Approaches to information literacy acquisition in Nigeria', observed that, one of the major factors militating against promoting higher levels of information literacy in Nigeria academic libraries is the lack of concerted effort in consistent pursuit of information literacy programme. Another factor is the level of computer illiteracy among librarians.

Several factors have been identified in the literature that hinders students from using electronic resources effectively. They include information literacy skills, awareness, availability of electronic resources, access to electronic database, and cost of acquisition or subscription, infrastructure, and internet connectivity. For example, problems identified by postgraduate students in accessing electronic resources in Makerere University, Uganda include slow internet connectivity, inadequate computers and opening hours, unwillingness of library staff to assist them in the lab and cost of printing (Okello-Oburu, 2010).

According to Hartmann (2001), due to difficulty in understanding retrieval process, postgraduate students of the University of Ballarat, Australia, found it difficult to locate electronic resources from the library.

The findings of a study conducted by Madhunsudhan (2010) involving 60 research scholars at Kurukshetra University; New Delhi also revealed lack of proper IT skills, slow internet connectivity and difficulty in getting relevant information as hindrances to using electronic resources.

THEORETICAL FRAMEWORK

The study is underpinned by Technology Acceptance Model (TAM) which was developed by Davis (1993). The purpose of TAM is to predict user acceptance of technology by using two technology related factors, perceived usefulness and perceived ease of use. Perceived usefulness (U) in TAM is the extent to which a user believes that the use of a system will enhance his or her performance. Perceived ease of use (EOU) is the extent to which a user believes that using the system will be effortless. According to TAM, both perceived usefulness (U) and perceived ease of use (EOU) significantly influence a person's attitude towards using the system.

This study adopts TAM as a theoretical framework because according to Dillon and Morris (1996), the diffusion theory offers little information on the factors that influence user acceptance of technology.

It rather focuses on characteristics that influence individual decisions in adopting a technology, such as compatibility and perceived complexity and the strategies used to market the technology to specific groups and organizations.

TAM has been successfully tested on a wide variety of technologies including information systems computer applications. The TAM theory is therefore appropriate for investigating the accessibility of electronic resources by postgraduate students in UCC.

RESEARCH METHODOLOGY

This study used a quantitative approach that emphasizes on objective, measurements and numerical analysis of data collected through questionnaires. It focuses on gathering data and forming conclusive opinion across groups of people (Babbie, 2010). For the purpose of this study, the entire population of postgraduate students in University of Cape Coast was used. The population of postgraduate students is 1,039 (Student Records and Information Management Unit, 2017).

The sampling technique that was used is stratified random sampling. The 5 Colleges in University of Cape Coast were grouped into 5 different strata. The Colleges are College of Education Studies, College of Distance Education, College of Humanities and Legal Studies, College of Agricultural and Natural Sciences, College of Health and Allied Sciences. In all, eighty (80) postgraduate's students were selected from each college. Simple random sampling was then used in selecting the respondents from the various Colleges. In all, 400 postgraduate students were selected for the study.

This study used structured questionnaires as the main data collection instrument. Questionnaire was administered by the researchers themselves and Statistical Product and Service Solutions (SPSS) version 21.0 was used for the analysis. The data collected for the study were analysed using descriptive statistics.

RESULT AND DISCUSSION

Research Question1

Where Does Postgraduate Students Access Electronic Resources?

The first objective of the study was to finds out where respondent's access electronic resources in UCC. The results in Table 1 indicated that majority of the respondents that is 205 (51.2%) access electronic resources both on and off campus, and only 138 (34.5%) access their electronic resources on campus. Again, only 57 (14.3%) access theirs off campus. The details of their responses are provided in Table 1.

Table1. *Place of Access*

Place of Access	Frequency	Percent
Campus	138	34.5
Off campus	57	14.3
On and off campus	205	51.2
Total	**400**	**100**

Source: *Field data, 2018.*

Respondents were further asked to state where they get quality internet access. The details are provided in Table 2.

Table2.*Quality of Services*

Location	Excellent		Very good		Good		Fair		Poor	
	F	%	F	%	F	%	F	%	F	%
Campus	10	2.5	40	10.0	275	68.8	50	12.5	25	6.2
Off campus	1	0.3	12	3.8	30	9.6	102	32.6	168	53.7

Source: *Field data, 2018.*

The data in Table 2 shows that respondents generally rate electronic resources on campus as good. Over 68% or 275 respondents indicated electronic resources access on campus as good compare to 30 (9.6%) who indicated access off campus as good.

This is encouraging news, since this will help most postgraduate students on campus to use more of the electronic resources in their studies.

This finding corroborates the work of Chaputula (2012), who indicated that respondents have quality electronic resources on campus as compared to off campus services.

Research Question2

What are the Types of Electronic Resources that are Useful to Postgraduate Students?

Respondents were asked to indicate the types of electronic resources are useful to their academic work. The result in Table 3 shows that most respondents rate Dspace and academic databases more helpful than OPAC. The details are provided in Table 3.

Table3. *Distribution of Usefulness of Electronic Resources*

Electronic resource	Useful		Not Useful	
	Frequency	Percent	Frequency	Percent
Academic database	351	87.8	49	12.2
Dspace	269	67.2	131	32.8
OPAC	150	37.5	250	62.5

Source: *Field data, 2018.*

The data in Table 3 reveals that 351 (87.8%) of the respondents indicated useful in the use of academic database whilst 49 (12.2%) indicated otherwise. Also, 269 (67.2%) stated the usefulness of Dspace as compared to 131 (32.8%) who stated otherwise. Again, 150 (37.5%) of the respondents agreed that the OPAC is useful whilst the majority 250 (62.5%) of the respondents disagreed. These findings suggest that students use Dspace and academic databases more than OPAC in their academic work. The implication of this finding is that not many of the respondents use OPAC and thus could not rate their usefulness. The findings of this study corroborate the studies by Sharma (2009), Zha Li, and Yan (2012), in the sense that majority of the respondents indicated that electronic resources are very useful.

Madhusudhan (2010) research paper on use of electronic resources by scholars of Kurukshetra University, Delhi, India, also supports the findings of this study with his reports that majority of the respondents admit that electronic resources are more useful compared with print resources.

Research Question3

What Problems are encountered in the Use of Electronic Resources by Postgraduate Students?

Another objective of the study was to find out the problems associated with the use of electronic resources. Fifty-seven (12.4%) of the

respondents indicated inadequate computers in the library as their problem, 37 (8.0%) associated theirs to lack of information on how to use electronic resource and 46 (10.0%) also indicated their reason to insufficient search skills. Again, 128 (27.8%) indicated that poor internet connectivity affect their decision not to use electronic resources, 82 (17.5%) associated theirs to inadequate access location, 95 (20.7%) indicated power outages and 15 (3.3%) of the respondents also said limited subscribed titles. The details of their responses are represented in Table 4.

Table4. *Problems in Using Electronic Resources*

Problems	Frequency	Percent
Inadequate computers in the library	57	12.4
Lack of information on how to use electronic resources	37	8.0
Insufficient search skills	46	10.0
Poor internet connectivity	128	27.8
Inadequate internet access location	82	17.8
Power outages	95	20.7
Limited subscribed titles	15	3.3

Source: *Field data, 2018.*

A deduction from the above is that the three major factors that affect postgraduate student's inability to use electronic resources are poor internet connectivity, power outages and inadequate internet access location. These barriers were similar to the reasons given by Ivwighreghweta and Onoriode (2012), Ogbomo and Ivwighreghweta (2011), Okoye and Ejikeme (2011), Emorjoho, Ivwighreghweta and Onoriode (2012) which reported power outages, inadequate skills to navigate the Internet, unavailability of Internet facilities as students major problems they encounter when using electronic resources. This study is also corroborated by findings in a study by Mirza and Mahmood, (2012) regarding students problems in using electronic resources.

RECOMMENDATIONS

- Inadequate access was identified as a problem. Accessibility of electronic resources should be improved by providing more computer work stations and data accessibility points through campus wireless network.
- Appropriate databases related to faculty and students fields of study should be subscribed to address the limited subscription titles.
- Internet connectivity and power generation should be improved for better services.

CONCLUSIONS

The results of the study showed that majority of post graduate students access electronic resources both on and off campus. Again, Respondents judged on-campus access as the best.

The results showed that the academic databases and OPAC were useful to postgraduate student's academic work Also, not many of the respondents use OPAC and thus could not rate their usefulness.

This study therefore indicated that the major problems encountered by postgraduate students in using electronic resources include poor internet connectivity, power outages and inadequate internet access location.

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