UNIVERSITY FOR DEVELOPMENT STUDIES

# INFORMATION-SEEKING BEHAVIOUR AND LIBRARY ELECTRONIC INFORMATION RESOURCE USAGE AMONG STUDENTS AT THE UNIVERSITY FOR DEVELOPMENT STUDIES



BAASHA INUSAH

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# INFORMATION-SEEKING BEHAVIOUR AND LIBRARY ELECTRONIC INFORMATION RESOURCE USAGE AMONG STUDENTS AT THE UNIVERSITY FOR DEVELOPMENT STUDIES.

**BY**

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**(UDS/MIC/0006/18)**

**THESIS SUBMITTED TO THE DEPARTMENT OF AGRICULTURE EXTENTION, RURAL DEVELOPMENT AND GENDER STUDIES (ARG), FACULTY OF AGRIBUSINESS AND APPLIED ECONOMICS (FAAE), UNIVERSITY FOR DEVELOPMENT STUDIES, IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR AWARD OF MASTER OF PHILOSOPHY DEGREE IN INNOVATION COMMUNICATION**

**2021**

## DECLARATION

I, hereby, declare that except for references to other works which have been duly acknowledged, this dissertation is the result of my own original work under the supervision of Dr Hudu Zakaria of the Department of Agricultural Extension, Rural Development and Gender Studies, University for Development Studies and that no part of it has been presented for another degree in this university or elsewhere. I accept responsibility for any shortcomings of this work.

Signature …… Date ……

Baasha Inusah (Student)

Signature …… Date ……..

Dr. Hudu Zakaria (Supervisor)


## ABSTRACT

Existing literature about library electronic information resources suggests academic libraries are seriously drifting from print to digital content. This enhances access to local and global information for the promotion of social, economic and political development in the society. The study sought to examine the information-seeking behaviour and library electronic information resource usage among students at the University for Development Studies. The study employed a survey methodology with a sample size of 374 obtained from the two campuses of the University for Development Studies through a multi-stage sampling technique. Data were collected mainly with the use of a questionnaire and analysed descriptively using the Statistical Package for the Social Sciences (SPSS) software. The study established a wide awareness of library electronic information resources among students. However, their utilisation of the library electronic information resources was limited due to lack of searching skills, slow access speed, limited subscribed titles and difficulty in finding relevant information among others. The findings further revealed that students find library electronic information resources to be very significant in their academic work as it helps to expand their knowledge-base and helps them retrieve information with ease for research and classroom work. The study further revealed student's information seeking behaviours mainly include searching the electronic database, asking the reference librarian, browsing books on the shelf, and seeking direction and recommendation from fellow students. Whereas the challenges encountered in seeking information included, unstable internet connection, low internet speed, need for password, inadequate computers and unapproachable library staff. The study findings suggest the university library management to work on improving internet access, to increase subscribed titles and to create a conducive environment. This includes employing amiable staff to assist students to access relevant books so that the information needs of students are fully met for their academic excellence.

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## DEDICATION

This work is dedicated to the Almighty God, for his immeasurable help throughout this work, and to my lovely family.



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## LIST OF ACRONYMS AND ABBREVIATIONS

A ……. Attitude

AACR ……. Anglo-American Cataloguing Rules

ACI ……. Akrofi Christaller Institute

AGORA ……. Access Global Online Research in Agriculture

BI ……. Behavioural intention

CARLIGH …….. Consortium of Academic and. Research Libraries in Ghana

CD-ROM …….. Compact Disk- .Read Only Memory

CUC …….. Central University College

DIT …..... Diffusion of Innovation Theory

E …….. Electronic

E-Resource …… Electronic Resource

EIFL …….. Education Information for Libraries

EIR …….. Electronic Information Resources

GIMPA ……... Ghana Institute of .Management and Public Administration

GTUC …… .Ghana. Technology University College

ICT …… Information and Communication Technology

INASPI …… International Network for the Availability of Scientific Publications

IR ……... Internal Repository

IT …….. Information Technology

ITOCA …… Information Training and Outreach Centre for Africa

MARC …… Machine Readable Catalogue

MBA ……... Masters of Business Administration

MPhil …….. Master of Philosophy Catalogue

MIS …….. Management Information System

| | | |
|---|---|---|
| MUCL | …….. | Methodist University College Library |
| OARE | …… | Online Access to Research on Environment |
| OCLC | …… | Online Computer Library Center |
| OPAC | …… | Online Public Access Catalogue |
| PEOU | …….. | Perceived Ease of Use |
| PERI | …….. | Programme for the Enhancement of Research Information |
| PNDC | …… | Provisional National Defence Council |
| PU | …… | Perceived Usefulness |
| SPSS | …….. | Statistical Package for the Social Sciences |
| T.V. | …….. | Television |
| TAM | …… | Technology Acceptance Model |
| TEEAL | ……... | The Essential Electronic Agriculture |
| UCC | …….. | University of Cape Coast |
| UDS | …….. | University for Development Studies |
| UG-DS | …..... | University of Ghana Dental School |
| UG-BS | …….. | University of Ghana Business School |
| UPSA | …… | University of Professional Studies, Accra |
| WIFI | …….. | Wireless Fidelity |
| WWW | ……. | World Wide Web |

# CHAPTER ONE

## 1.1 Introduction

Electronic information and online library resources are becoming prevalent globally because of the growing awareness of the potential that library electronic information resources offer in terms of access and convenience. (Boumarafi, 2010). However, it is a widely held view that these services are not fully utilized (Deans and Durrant, 2016). Ebenezer and Diana (2018) reiterated that spite the high cost of e-resources in the provision of effective and efficient information for learning and research purposes, available literature shows that their usage is not up to the level expected. This peculiar challenge is mostly associated with developing countries. Further studies carried out by Bankole (2012) and Fiankor and Akussah (2012) showed low awareness of e-resources by clients; this has contributed to limiting access to relevant and reliable information by users in making decision on their research.

Failure of students in making effective use of library electronic information resources has been a cause of concern to librarians worldwide. This inability to effectively exploit these resources is generally attributed to, among other factors, lack of awareness and lack of competence in the use of library resources (Deans and Durrant, 2016; Mole and Mesagan, 2017; and Lockwood and Comiskey, 2016).

Library electronic information resources have become a pivotal point in academic and research organizations, especially in developing countries. Electronic information resources are not only the necessity of the time, but also have become the face value of any academic institution. The concept of the library is changing very fast due to the impact of library electronic information resources, as the libraries not only have printed material but also digital resources.

Ankrah and Atuase (2018) in discussing the use of electronic resources by postgraduate student of the University of Cape Coast academic libraries stated that, in the 21st century libraries may not function properly without the heavy reliance on electronic resources. Tyckoson (2011)

reiterate that academic libraries as information centres which fail to adopt suitable information technology in the discharge of their mandate may stop to operate which may lead to a shut down. Fundamentally, ICTs are the standpoints that offer access to library electronic information resources. Contemporary teaching, learning and research purposes are aided by ICT within academic libraries in tertiary institutions. Academic libraries are central in higher educational systems, assisting in the improvement of learning and dissemination of knowledge to meet the information needs of the universities and their communities through the provision of timely information.

Libraries are very crucial and providing major service in academic institutions. Academic Libraries provide various learning resources for academic advancement targeting different categories of learners. Furthermore, they provide enabling platforms for both lecturers and students to attain their intended goals and objectives with regard to knowledge acquisition. Particularly, libraries provide educators with the requisite media resources and support materials. Materials of these sort are then integrated in a formal setting to enhance teaching and learning which otherwise lead to improve performance (Ebenezer and Diana, 2018). Well-resourced academic libraries with up to date resources and technology tools serve as a true reflection of the 21st century. Academic libraries as they stand are also instrumental to institutions as they enhance academic excellence (Mogase and Kalema, 2015; Lockwood and Comiskey, 2016).

Information and Communication Technologies (ICT) development have radically taken over every sphere of activity in university libraries. Academic libraries owe it a key duty to keep pace with technological advancement in order to cope with users' continual sophisticated information requirements.

Tyckoson (2011) as indicated earlier, libraries and information centres which fail to adopt appropriate information technology in the discharge of their services may cease to function and

perhaps, close down. This observation had become more obvious in recent times considering the rapid advancement of ICTs and its popularity among people.

It can never be untrue that, the use of information communication technologies has turned the fortunes of the information industry in a tremendous form and ways. These technological improvements and innovations have brought to light success chalk by many organizations and institutions positively of which academia is not left out. The information generation, use and storage had a milestone progress. These technologies have changed the way we used to practice storage, organizing, retrieving and dissemination of information in our libraries of late (Tyckoson, 2011). According to Larson (2017), electronic databases have become a prime concern of library collections around the globe in contemporary times. The roles they play are so much essential for learning, teaching and research works. Samaravickrama and Samaradiwakara (2014) the importance of the databases in academia as well as libraries is so tremendous and cannot be underestimated.



**1.2 Problem statement**

In this era of digitalization, library electronic information resources are becoming prevalent and most preferred worldwide, and its use is growing exponentially due to increasing access and delivery (Boumarafi, 2010; Laura DeLancey and Ostergaard, 2016). However, with the introduction of new tools for electronic information resources searching and retrieval, users have to read just their information-seeking behaviour to cope with the corresponding changes. In recent times many researchers have examined the provision, access and use of online electronic library resources. A study by Deans and Durrant (2016) investigated the knowledge and use of electronic library resources in Jamaican community colleges and found that students were not well informed and lack the requisite knowledge to use online library resources. They therefore recommended that instructional programmes be implemented by library management in an effort to impart knowledge and promote the use of electronic library resources in these

colleges. Similarly, Mole and Mesagan (2017) studied the provision of online public access catalogues for effective utilization of library resources in three University libraries in Nigeria. They found out from their study that database conversion, unstable power supply, consistent systems breakdown, and inadequate computers, were constraining the provision of online public access catalogs to support the use of library resources in the university libraries.

Also Lockwood and Comiskey (2016) studied the use of research resources from a University Library by Criminal Justice Students and found that criminal justice students were not more or less likely to utilize resources from the university library compared to their peers but that criminal justice students feel that services from librarians are less effective than non-criminal justice students. Earlier a study by Spahr (2015) on influences on undergraduate business students' perceptions about the adequacy of library information resources recommended for increasing students' awareness of specialized business databases and improving students' perception that the content of these databases is useful for their coursework.

However, with regard to researcher and academic staff use of library electronic information resources, a study by Amjad, Ahmed and Salman (2013) on use of electronic information resources among research scholars in the Islamia University of Bahawalpur, Pakistan found that most of the researchers (61%) used electronic resources daily for many purposes and reasons. Most of them (57%) were “satisfied” with the usage of electronic resources. Also Laura and Ostergaard (2016) studied the accessibility of electronic library resources and recommended that online library resources providers should ensure equal access and opportunity for students, faculty, and staff in higher education. Similarly, Ndungu (2016) observed that librarians have realized that they must aggressively market and create awareness and as such have created promotional activities at a minimal cost to the library while in many libraries, the allocation of funds for marketing has been overlooked. Lo et al. (2017) asserted that the provision of online library resources comes with new management challenges such as

copyright, and access restrictions, consortium collaboration, manpower issues, workflow, and library system changes.

Due to increasing availability and access to library electronic information resources and advancement in smart devices particular laptops and mobile handsets more and more user are now going online to access information and as such shaping individual information-seeking behaviour. Lo et al. (2017) observed that due to recent technology advancement and particularly ubiquity of smart devices, user needs and habits of using library materials are also changed towards electronic resources, which facilitate easier access to information. However, very few studies focused on how users are responding to the emerging library electronic information resources and the extent to which it is shaping individual information-seeking behaviour. Boumarafi (2010) have long observed that with the introduction of new tools for e-information searching and retrieval, users have to read just their information-seeking behaviour to cope with the corresponding changes. Deans and Durrant (2016) found that notwithstanding the increasing accessibility of electronic library resources, students are increasingly using Internet search engines for research purposes rather than online library databases of their institutions. As a result electronic library resources are underutilized.

A study by Clark (2014) on Information-Seeking Behaviour and library use by distance education graduate music education students provided insights into the needs, preferences, and information-seeking behaviours of students in an online programme, and recommend for informed library's approach in revising its supporting materials for the distance education programmes.

Electronic information resources of the University for Development Studies (UDS) library like many online library resources are being underutilized against the backdrop that it cost the institutions hugely to set up and operate (UDS Library, 2018). This clearly demonstrates that students' information-seeking behaviour appear not to be changing in line of the growing accessibility of library electronic information resources and online databases (Nicholas and

Jamali, 2010). University for Development Studies is a premiere university in Northern Ghana and has won several awards in the area of academic excellence. Jubb and Green (2007) (cited in Yeboah and Boakye, 2017) stated that, in any tertiary institution, the library serves as the central nerve that all academic activities evolve around, making it an essential facility of the institution.

The University for Development Studies main library which is Jerry John Rawlings Library named after the former president of the republic of Ghana, boast of state-of-the-art building, comfortable seating arrangement accompanied with great cooling system, with up-to-date collection of electronic and print information resources and services. The library started using electronic information resources somewhere in 2004 which was donated by Netherlands to some public academic institutions in Ghana which UDS was a beneficiary. Username and password were given to beneficiary university libraries to enable them access this library electronic information resources. With this, students and faculty members had to come to the library to be able to access the resources. This became a challenge coupled with slow internet connectivity, lack of adequate computers among others resulted in very low patronage of the library electronic information resources. As a result, in 2015, the library procured EZPROXY which was configured, and also upgraded the internet bandwidth to improved internet connectivity. Desperate to improve access and usage, the university library in late 2019 launched REMOTEX to improve access both on and off campus all in view of improving access and usage leading to academic excellence. Upon all this in place, the university library electronic information resources are woefully under use an issue which the management of the library are grappling with. Students are mostly seen enjoying sites that are not of academic interest like movie, pornographic sites etc.

The University for Development Studies library has electronic information resources and studies has found out that online resources make information readily accessible to academic staff and students, but the university is spending a lot of resources to maintain the library

electronic information resource base and as a result they pay subscription and intended services and employ staff to maintain the services, but it is woefully underutilised by students, could it be that the electronic information resources of the library is not fitting into student academic information seeking-behaviour? And very little is known about that and therefore this study assesses student's academic information seeking-behaviour as it relates to use of library electronic information resources.

### 1.3 Research Question

1. What knowledge do students have about University for Development Studies library electronic information resources?
2. How useful is UDS library electronic information resources to addressing students' information needs?
3. What is the extent of use of the library electronic information resources by students of UDS in seeking academic information?
4. What is UDS students' academic information seeking-behavior?
5. What factors determine UDS students' academic information seeking – behavior?
6. What challenges do students' encounter using UDS library electronic information resources?



### 1.4 Objectives of the study

The main objective of the study is to analyse the effect of students' academic information seeking – behaviour on their use of UDS library electronic information resources.

#### 1.4.1 Specific objectives

1. To determine student knowledge about university for Development Studies library electronic information resources.
2. To explore the usefulness of UDS library electronic information resources to addressing student's information needs

3. To analyze the extent of use of the library electronic information resources by students of UDS in seeking academic information.
4. To examine UDS students' academic information seeking–behavior.
5. To examine factors that determine UDS students' academic information seeking behavior.
6. To examine challenges students encounter using UDS library electronic information resources



### 1.5 Relevance of the study

The study is relevant for the following reasons. The research will bring to bear clear understanding of library electronic information resources for researchers as well as information professional to appreciate. Even though there has been many research conducted into Information–seeking behaviour and library electronic information resources usage, such investigation of the problem is not known at the University for Development Studies and since is an academic work is aimed at adding value to existing knowledge by filling the gap. The findings are also expected to inform management in decision making about effective library electronic information resource provision. The study will also serve as a reference material for the formulation and implementation of policies and directions on the use of library electronic resources at UDS and other tertiary institutions in Ghana.

This study will also lay bare its empirical model to scholars for better understanding the factors that facilitate and factors that inhibit the usage of electronic information resources in Tertiary Institutions libraries in Ghana, as well as providing foundation for further research that will help expand empirical model on the library electronics information resource initiatives.

Finally, information professional such as Librarians' will also be enlightened on best and efficient ways of providing information needs to students and other information seekers through library electronic information resources.

## 1.6 Theoretical Framework of the study

Theoretical framework contains the theory that guides a study. It is the structure that holds or supports a theory of the research study. A theory can be defined as a set of definitions and propositions that specify the relationship among variables. They help to explain and predict phenomena that occur in the world (Bentil, 2011). Creswell (2003), stated that the theory for a study guides the entire study, an organizing model for the research questions and for the data collection procedure. In other words, a theory guides the research process.

Various theories have been propounded to explain the use and acceptance of technology. However, this research was anchored on two (2) theories: that is Diffusion of Innovation theory and the Technology Acceptance Model (TAM). The understanding of the factors that influence the acceptance of technology by users is important to both researchers and the organizations that procure the technology. Academic institutions for example will like to know the extent to which their huge expenditures on technologies such as library electronic information resources have benefited faculty and students. User acceptance refers to the evidence of the willingness of a user group to use information technology to support a designated task (Dillon and Morris, 1996).

### 1.6.1 Rogers's diffusion of innovation theory (DIT)

Diffusion of Innovation Theory (DIT) by Rogers (2003) has been employed in studying individual's technology adoption. The main goal of DIT is to understand the adoption of innovation in terms of four elements of diffusion these are; innovation, time, communication channels, and social systems.

a. Innovation

Rogers offered the following description of an innovation: An innovation is an idea, practice, or project that is perceived as new by an individual or other unit of adoption (Rogers, 2003, p. 12). An innovation may have been invented a long time ago, but if individuals perceive it as new, then it may still be an innovation for them. The newness

characteristic of an adoption is more related to the three steps (knowledge, persuasion, and decision) of the innovation-decision process that will be discussed later. In addition, Rogers claimed there is a lack of diffusion research on technology clusters. For Rogers (2003), a technology cluster consists of one or more distinguishable elements of technology that are perceived as being closely interrelated.

Uncertainty is an important obstacle to the adoption of innovations. An innovation's consequences may create uncertainty: Consequences are the changes that occur in an individual or a social system as a result of the adoption or rejection of an innovation (Rogers, 2003). To reduce the uncertainty of adopting the innovation, individuals should be informed about its advantages and disadvantages to make them aware of all its consequences. Moreover, Rogers claimed that consequences can be classified as desirable versus undesirable (functional or dysfunctional), direct versus indirect (immediate result or result of the immediate result), and anticipated versus unanticipated (recognized and intended or not).

b. Communication Channels

The second element of the diffusion of innovations process is communication channels. For Rogers (2003), communication is a process in which participants create and share information with one another in order to reach a mutual understanding (p. 5). This communication occurs through channels between sources. Rogers states that a source is an individual or an institution that originates a message. A channel is the means by which a message gets from the source to the receiver. Rogers states that diffusion is a specific kind of communication and includes these communication elements: an innovation, two individuals or other units of adoption, and a communication channel. Mass media and interpersonal communication are two communication channels. While mass media channels include a mass medium such as TV, radio, or newspaper, interpersonal channels consist of a two-way communication

between two or more individuals. On the other hand, diffusion is a very social process that involves interpersonal communication relationships (Rogers, 2003). Thus, interpersonal channels are more powerful to create or change strong attitudes held by an individual. In interpersonal channels, the communication may have a characteristic of homophily, that is, the degree to which two or more individuals who interact are similar in certain attributes, such as beliefs, education, socioeconomic status, and the like, but the diffusion of innovations requires at least some degree of heterophily, which is the degree to which two or more individuals who interact are different in certain attributes. In fact, one of the most distinctive problems in the diffusion of innovations is that the participants are usually quite heterophilous (Rogers, 2003).

Communication channels also can be categorized as localite channels and cosmopolite channels that communicate between an individual of the social system and outside sources. While interpersonal channels can be local or cosmopolite, almost all mass media channels are cosmopolite. Because of these communication channels' characteristics, mass media channels and cosmopolite channels are more significant at the knowledge stage and localite channels and interpersonal channels are more important at the persuasion stage of the innovation-decision process (Rogers, 2003).



c. Time

According to Rogers (2003), the time aspect is ignored in most behavioral research. He argues that including the time dimension in diffusion research illustrates one of its strengths. The innovation-diffusion process, adopter categorization, and rate of adoptions all include a time dimension. These aspects of Rogers' theory will be discussed later in more detail.

d. Social System

The social system is the last element in the diffusion process. Rogers (2003) defined the social system as a set of interrelated units engaged in joint problem solving to

accomplish a common goal. Since diffusion of innovations takes place in the social system, it is influenced by the social structure of the social system. For Rogers (2003), structure is the patterned arrangements of the units in a system. He further claimed that the nature of the social system affects individuals' innovativeness, which is the main criterion for categorizing adopters.

DIT also states that an individual's technology adoption behaviour is determined by his or her perceptions regarding the relative advantage, compatibility, complexity, trial ability, and observability of the innovation, as well as social norms. A number of studies have used DIT as their theoretical framework or combined DIT with other theories and models to explain ICT adoption and use. Information Science scholars mentioned that in the context of end-user computing, many of the classical diffusion assertions were valid (Agarwal & Prasad; Brancheau & Wetherbe, cited in Kim, 2011).

Rogers (2003) Diffusion theory posits five characteristics of innovations that affect their diffusion:

a) relative advantage (the extent to which an innovation offers improvements over currently available tools)
b) compatibility (its consistency with social practices and norms among its users)
c) complexity (its ease of use or learning)
d) trial ability (the opportunity to try an innovation before committing to use it)
e) observability (the extent to which the technology's outputs and its gains are clear to see)

The five main constructs of DIT were employed and found to have significant relationships with other factors in ICT adoption and use research. Relative advantage was found to have a positive relationship with attitude (Agarwal & Prasad, cited in Kim, 2011), and relative usage intention (Lin, Chan, & Wei, cited in Kim, 2011). Compatibility was found to have an influence (Bhattacherjee & Hikmet, cited in Kim, 2011), attitude (Agarwal & Prasad; Lee, Kozar, &

Larsen, cited in Kim, 2011), and intention (Saeed & Muthitacharoen; Wu & Wang, cited in Kim, 2011). Complexity was found to have a negative relationship with the technology adoption intention (Beatty, Shim & Jones, 2001; Son & Benbasat, cited in Kim, 2011).

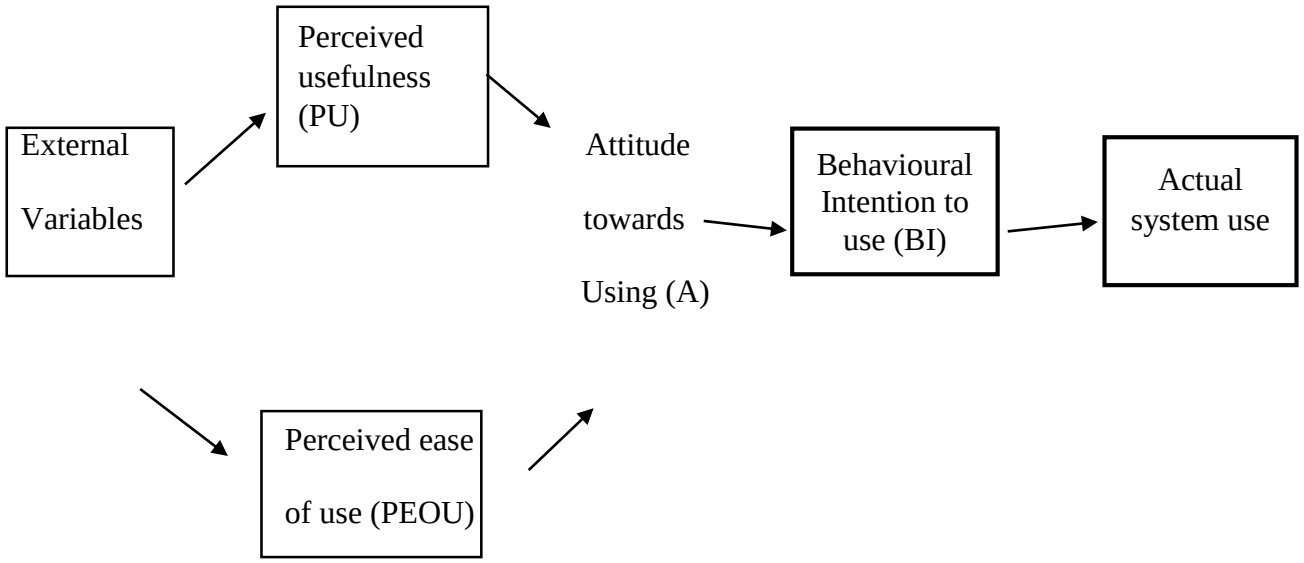
At a point, the number of adoptions drops off as there was progressively fewer new consumers (Kim, 2011).

The Diffusion of Innovation Theory (DIT) brings to bare the fact that humans have certain factors to consider before changing and clinging onto an innovation such as; the emergence and usage of electronic resources. One of the factors to be considered for this study is the significance or usefulness of electronic information resources. Another factor is the problems that come with the usage of electronic information resources. Lack of practical computing skills has been discovered as a problem faced by students while they used electronic information resources.

### 1.6.2 Technology acceptance model (TAM).

TAM is the most influential, empirically tested, widely used model of technology acceptance. It was developed by Davis (1993) and its concept is derived from the Theory of Reasoned Behavior (TRA) proposed by (Priyanka and Kumar, 2013). The basic concept of TRA is that, individual behaviors are determined by their intentions to execute those behaviours. These intentions are in turn influenced by two factors, their attitudes and beliefs about the consequences of the behavior; that is, what important people in the life of these individuals will think about their behaviors. TRA has been successfully used to predict the choices made by people in diverse situations (Dillon and Morris, 1996).

**Figure 1.1: Technology Acceptance Model (TAM)**




**Source: (Davis, Bagozzi & Warshaw, 1989).**

**Perceived Usefulness (PU)**

According to Davis (1989), Perceived usefulness (PU) is defined as the degree to which a person believes that using a particular system would enhance his or her job performance. In relation to this study, if students perceive that using the electronic information resources will help improve in their studies, then there is a likelihood students will intend appreciate and use the resources more often otherwise.

**Perceived Ease of Use (PEOU)**

Perceived Ease of Use (PEOU) is the degree to which a person believes that using a particular system would be free from effort (Davis, 1989). According to Davis (as cited in James, 2010), Perceived ease of use is the ease with which a new technology can be used. In the context of this study, this implies that, if the intend respondents see the electronic resources as an easy-to use system, they will continue to make good of it. However, if the respondents find the system cumbersome to use then they will shun away from using it. In view of this, any system which is more easy to use, will attract more users. Irrespective of how easy one perceives a system to be but still lacks some functionalities, it might not be attractive to the user (Suorsa

& Eskilsson 2014). In the works of Juhary (2014), to some level, users can cope with some difficulty when using the system provided it provides services that are critical to their needs.

**Attitude (A)**

Attitude (A) refers to the general feeling of favourableness or unfavourableness about performing a behaviour. Attitude determines the behaviour which in turn influences the actual acceptance. In relation to this study, perceived usefulness and perceived ease of use of a system influences attitude towards it. If users of the electronic resources perceive that it as easy to use and beneficial then they will develop positive attitude towards it.

**Behavioural intention (BI)**

Behavioural intention (BI) is defined as a person's perceived likelihood or subjective probability that he or she will engage in a given behaviour (Committee on Communication for behaviour Change in the 21st Century, 2002).

**Actual system use**

Actual system use refers to the extent at which users utilise a system. This is influenced by the behavioural intention to use a system.

The factors influencing the acceptance and rejection of new technologies have been of interest to scholars for decades. One of the most popular models that attempt to capture the acceptance or rejection of technologies in the workplace is Davis's Technology Acceptance Model. The Technology Acceptance Model (TAM) will be use to guide the study. According to Bertrand and Bouchard (2008) the theory is aimed firstly at identifying the determinants involved in computer acceptance in general; secondly, to examine a variety of information technology usage behaviours; and thirdly, to provide a parsimonious theoretical explanatory model.

Fred D. Davis proposed the Technology Acceptance Model in his doctoral dissertation in 1985 that, system use is a response that can be explained or predicted by user motivation, which, in turn is directly influenced by an external stimulus consisting of the actual system's features and capabilities (Chuttur, 2009).

With this modification, Davis explained that users‟ motivation could be elucidated based on three factors: perceived ease of use, perceived usefulness, and attitude towards using the system (Chuttur, 2009).

Davis et al. (cited in Dillon and Morris, 1996) explained that in a job situation, an employee's intention to use a system will be strictly based on the impact of the system on his or her work performance, irrespective of his or her attitude towards the system. In other words, an employee may dislike a system but may use it based on perceived increase in his or her job performance. This study adopts TAM as one of the theoretical framework because according to Dillon and Morris (1996), the diffusion theory offers little information on the factors that influence user acceptance. It rather focuses on characteristics that influence individual information seeking behaviour 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. This theory is therefore appropriate for investigating the information-seeking behaviour and library electronic information resources usage among students of the University for Development Studies.



**1.7 Scope and limitation of the study**

Established in May 1992 by the Government of Ghana to blend the academic world with that of the community in order to provide constructive interaction between the two for the total development of Northern Ghana, in particular, and the country as a whole (PNDC Law 279, Section 279). The UDS was borne out of the new thinking in higher education which emphasizes the need for universities to play a more active role in addressing problems of the society, particularly in the rural areas (Effah, 1998).

The University by its mandate and constituency has a pro-poor focus. This is reflected in its methodology of teaching, research and outreach services. The specific emphasis on practically-

oriented, research and field-based training is aimed at contributing towards poverty reduction in order to accelerate national development.

It began academic work in September 1993 with the admission of forty (40) students into the Faculty of Agriculture, (FoA), Nyankpala (Uds.edu.gh, 2019).

The research was undertaken at UDS which has 3 campuses in the northern region as at the time the research was conducted. They comprise of Tamale campus, Dungu campus and Nyankpala campus. But the research was conducted at Nyankpala campus which houses the main library of the university and Dungu campus. Much of the data was collected from the Dungu campus library where majority of the students are located. The study seeks to analyse the effect of students' information seeking–behaviour on their use of UDS electronic library resources and how it impacts academic performance with a targeted population of 10,118 students as well as the Head of the electronic information resources unit of UDS library because he/she has much information about the library electronic information resources. However, data was gathered based on sampled population of students and the Head of library electronic information resources.



**1.8 Definition of key terms**

**a. Electronic information resources**

According to Thanuskodi (2012), electronic information resources are the electronic representation of information. They are available in various forms like e-books, digital libraries, online journal magazines, e-learning tutors and online tests. Because of the effective presentation with multimedia tools, these electronic information resources have become the source of information. Electronic information resources deliver the collection of information as full text databases, e-journals, image collections, multimedia in the form of CD, tape, internet, web technology etc.

Haridasan and Khan (2009) also defined electronic information resources as resources in which information is stored electronically and which are accessible through electronic systems and networks. These include for example, e-journal and electronic databases that can be accessed on the Internet, computer, CD-ROM, or related computer or electronic networks (Watts and Ibegbulam, 2006).

**b. University**

University is an institution of higher (or tertiary) education and research, which awards academic degrees in various academic disciplines. Universities typically provide undergraduate education and postgraduate education (Wikipedia, 2019)

The new international Webster's comprehensive dictionary of English language (2004) defines a University as an educational institution for higher instruction or for the examination of students already instructed.

**c. Academic Libraries**

An academic library is a library that is attached to a higher education institution which serves two complementary purposes:

(i) to support the school's curriculum; and

(ii) to support the research of the university faculty and students.

A designated place, physical or digital, set aside to house scholarly research materials and materials supporting the academic, university, or college community and curriculum

An academic library is a library associated with a college or university which supports the mission of the institution and the research needs of its faculty, staff and students. Although it is possible that a purely virtual library could exist, no brick and mortar institution has yet taken that step. Instead, most academic libraries consist of a physical space (usually quite large but on occasion as small as one room) and a staff of librarians and other employees that manage the building and its collections (Ebenezer, 2016).

**d. Research:**

It is the systematic process of finding out new fact or knowledge (Ochai & Nedosa, 1998). Thus, by research, the process employed by scientists to facilitate the discovery of new knowledge is referred.

**f. Use:**

Ability to utilise electronic information resource in the conduct of research (Borgman, 2000). Utilisation expresses the ease of use of electronic information resources through ICTs.

**e. Information seeking behaviour:**

Information searching and acquisition process have several components, such as passive attention, passive search, active search and ongoing search (Aaker, Batra, and Myors, 1992). Active search and the ongoing search are very important in the educational sector, as active information handling is required for the acquisition of knowledge. Ongoing search is highly required in the teaching, learning, and research, and as this type of search involves a basic framework of ideas, beliefs, values, or any other requisites to update or expand one's knowledge.

According to Niedzwiedzka (2003), passive attention is an un-purposive seeking for information from the environment such as watching the television or listening to the radio. Passive search is a type of behaviour that results in the acquisition of information that happens to be relevant to the user. Active search is when a person is actively involved in seeking information. Lastly, ongoing means persistent search undertaken in order to develop or update an area of interest.

### 1.9 Organization of study

The study is structured around five chapters.

**Chapter one**

Introduces the area of study. It provides an outline of the research and gives an overview of the library electronic information resources and information-seeking behaviour of students. It also focuses on the background of the study, problem statement of the research, questions and objectives of the study, the relevance of the study, conceptual framework and definition of key terms used for the study.

**Chapter two**

Reviews and discusses literature relevant to the topic to establish a theoretical approach to the research. The literature provides evidence for the analytical argument to support the study.

**Chapter three**

Focuses on the method used to operationalize the research objectives and questions of the present study. It consists of the research design that details the sampling procedure, data collection, analysis and procedures of methods. It also focuses on, the instrument used to collect needed information for the study.

**Chapter four**

Presents results and discussions of findings of the research within the realms of the study objectives. It focuses on data analysis and findings, It gives a detailed analysis on data collected, presenting information about demographic, knowledge of library EIR, promotional strategies used in marketing library EIR, Usefulness of the resources, extend of use, level of computer skills, students' academic information seeking behaviour, as well as, the level of satisfaction and challenges associated with library EIR.

**Chapter five**

The last chapter focuses on the conclusion, recommendations based on the findings of the study and suggested areas for further research.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

According to Al-hassan (2015), a literature review is a critical step for every graduate thesis. Literature review is about knowing what already exist in your chosen field. It involves the method of locating, reading, obtaining, synthesizing and evaluating the research literature in your area of interest. It's about reviewing past works, and sometimes on-going studies relevant to your study problem and objectives, study design, modelling, findings and conclusions it can be termed as an umbrella for your studies (Seidu Al-hassan, 2015).

Adetomiwa & Okwilagwe (2018) stated that, the advent of information and communications technology (ICT) introduces opportunities like electronic databases (such as D space, e-prints and repositories). In recent times, as part of global shift from the hard copy information prints to electronic-based ones, university libraries now subscribe to a number of electronic databases consisting of journals and monograph reports. Some of these databases are JSTOR, AGORA, HINARI and OARE. Electronic databases can be accessed by logging into the university's website while on campus but need passwords outside the campus.

Thanuskodi (2012) (citing Alagu and Professor. N. D), electronic resources are the electronic representation of information. There are available in various forms like e-books, digital libraries, online journal magazine, and e-learning tutors and on line test. Because of the effective presentation with multimedia tools, these e-resources have become the source of information. Electronic information resources delivers the collection of information as full text databases, e-journals, image collections, multimedia in the form of CD, tape, internet, web technology etc.

Academic libraries are associated with a university and are used to meet the needs of the different stakeholders in the institution by supporting teaching, learning and research activities.

Among the stakeholders in academic libraries are students, teachers, researchers, administrative staff and other research workers and alumni of the university who serve or support the objectives of the parent organisation – that is, teaching, learning and research – by catering to the information needs of these stakeholders (Gupta, 2011). These libraries fulfil the educational needs of students that arise from their subject specific curricula (Tlakula & Fombad, 2017).

The introduction and advanced use of information and communication technologies over the years have brought the digitalization, reformation and transformation of libraries into electronic information service systems. This scenario has brought radical changes in the way information is gathered, assembled and utilized in today's libraries by the users. This is given also that the advancement in computer application to information processing has increased the availability of electronic information resources, and services in today's academic libraries. The development and availability of the Internet service has contributed to increasing the impact that information has on people by placing vast information resources at people's door steps (Odumegwu, 2014). For example, many libraries have print versions (physical books) and also subscribe to electronic full-text versions of materials with the help of the internet.

Kanyengo (2009) argued that, in Africa, information in electronic format has expanded to considerable heights in academic institutions such as the universities through the benevolence of organisations. Since the 1990's the International Network for the Availability of Scientific Publications (INASP) on behave of African countries came to an agreement with International publishers to grant African countries discount prices in relation to electronic information resources subscription by libraries of academic institutions.

These initiatives by INASP has enhanced programmes such as Access Global Online Research in Agriculture (AGORA), HINARI Access to Research Initiatives, The Essential Electronic Agriculture (TEEAL) and Programme for the Enhancement of Research Information (PERI), together with (OARE) Online Access to Research on Environment (Rosenberg, 2006).

Electronic information resources availability in African countries can be attributed to the immense contribution and generosity by these organisations.

Moreover, most academic libraries in Africa continue to populate their home pages with intellectual works among them are postgraduate students' dissertations/thesis, annual reports, journal articles of academic staff, inaugural lectures, past examination questions among others. These are to enhance availability of scholarly knowledge in African universities to diverse users. Consequently, utmost universities have made it obligatory that postgraduate students submit their academic work in both print and electronic formats on CD-ROMs. These libraries through their Internal Repositories (IR) have also taken advantage of the digitization processes to digitize hard copies of old theses and make other information resources more accessible to clients (Larson, 2017).

In Ghana, there has been remarkable improvement in the provision and access to electronic information resources in academic and research libraries, through the benevolent initiatives of information organisations such as INASP and PERI. These organisations are responsible for price negotiations on electronic information resources with international publishers on behalf of most academic libraries since 1990s and early 2000s (Kwadzo, 2015). Most academic libraries in Ghana have acquired electronic information resources such as e-journals and e-databases through the initiatives of these information organizations. Now, scholars, researchers and other information seekers have wide range of access to e-resources from higher educational institutions for their academic work (Ankrah, 2018).

Scaramozzino et al., (2015) said the library perform four major functions. These include curation, research and learning, publishing and space. The curation defines the selection, preservation, archiving, collection, maintenance and providing access to these useful resources pertaining to cultural records for libraries, predominantly books and manuscripts, but include images and audio items. By Research and learning engagement, users build upon their

knowledge and learning abilities to improve upon research in either to solve their problems or to acquire academic excellence.

**2.2 Electronic information resources**

With the rapid growth of information and communication technologies, there has been a paradigm shift from print to electronic information resources, electronic information resources are expanding tremendously, and their usage is gaining momentum day by day (Siwach & Parmar, 2013). Siwach (2013), defined electronic resources as those materials that require computer access, whether through a personal computer, mainframe, or handheld mobile device. Sharma (2009) added that electronic information resources can be online journals, data archives, online manuscripts, online maps, electronic books, electronic magazines, online theses, electronic newspapers, electronic mail, online research reports and bibliographic databases, which can be accessed locally or remotely with the help of internet connectivity.

Ahmed (2013) researched into electronic information resources in public universities in Bangladesh. The purpose of the study was to describe the pattern of electronic information resources use and satisfaction with university paid resources by the faculty members in eight public universities in Bangladesh. A questionnaire was administered online out of the 1894 (a response rate of 27.30 percent), a total of 517 eight public university faculty members responded to the online survey. From the survey it came out that the common reasons for electronic information resources use were for research, which represented by 461 (94.47%) respondents, next was teaching which was represented by 413 (84.63%). Another reason faculty members used electronic information resources was for learning purpose representing 317 (64.96%) respondents, 284 (58.20%) remaining pointed out that they patronise the resources to obtain up to date information. The results further indicated that members of the faculty were generally not pleased with the electronic information resources subscribed by the university and this had to do with the difficulties faced when accessing the subscribed library

electronic information resources of the university. These challenges resulted in difficulty in finding the right information, serious challenge when accessing the resources from home, limited number of title available and insufficient computers coupled with low band wave speed. Based on the study findings, it was recommended that the public universities in Bangladesh should subscribe to a variety of full- text and bibliographic databases with more rich content that will satisfy the needs of diverse users. Also, librarians should find creative ways of creating awareness of the resources and organizing training programmes. Finally, a consortium for university libraries should be created which will ensure an affordable access to a wide range of electronic information resources in diverse disciplines hence solving the issue of limited number of titles available.

A study was also carried out at the University of Venda, South Africa (Tlakula and Fombad, 2017) wrote on the use of electronic resources by undergraduate students. The purpose of the study was to establish the level of awareness, use, and training in electronic resources at the University of Venda. A qualitative research approach was adopted and semi-structured interviews were organized with all participants to get as much information as possible. The study revealed that students awareness with regards to the existence of electronic information resources in the library is very low and more to that, apart from SABINA and EBSCOhost users are not familiar with any other e-resources that are provided by the library simply because they were only given special training on the above mentioned resources hence their knowledge in it. Interestingly, students also confused electronic information resources to that of web-based resources. In terms of skills level, the study revealed that students were not adequately equipped to efficiently use the electronic information resources and express dislike to the way and level of training offered in accessing electronic information resources. The study revealed that the obstacles militating against the use of electronic information resources included lack of adequate training, low level of awareness, lack of searching skills, computer illiteracy and inappropriate publicity. The study recommended that there is the need to put more efforts in

providing information literacy, adequate training in using e-resources, and skills development marketing and awareness programs at the University of Venda.

On the Ghanaian scene, Ankrah and Atuase (2018), researched on the Use of Electronic Resources by Postgraduate students of the University of Cape Coast. The purpose of the study was to examine the awareness and use of electronic resources by postgraduate students of the University of Cape Coast. With regard to research a cross-sectional survey design was employed as the methodology for this study. The study revealed that majority of the respondents 185(73.0%) were aware of electronic information resources while few of the respondents 67(27.0%) were not aware of the e-resources that exist in the University. It came out that majority of the respondents had under gone training on online databases and e-journals as against the OPAC, CD-ROM and institutional repository. It also came out that most postgraduate students desired to access information from web-based data bases such as Google Scholar and so on than the databases available in the library. It also came to light that electronic information resources were not fully utilized because of the challenges associated with it. 183(72.6%) indicated that slow access speed of the internet was a major factor in accessing electronic information resources, 173(68.7%) pointed out that frequent power outage in the library was a serious challenge they faced in accessing electronic information resources. Furthermore, 165(65.5%) indicated lack of skills, resulted in their ability to access the resources, while 157(62.3%) respondents indicated that they could not access electronic information resources effectively due to limited subscribed titles. A total of 143(56.7%) respondents said they did not have effective access to electronic information resources in the library because of inadequate computers. Similarly, 32(12.7%) of them perceived that the overload of electronic information resources was a challenge. Based on the findings of the study, it was recommended that library management should put in place mechanisms such as awareness creation and training to ensure that electronic information resources are fully accessed and utilized.

## 2.3 Electronic information resources in Africa

In the advanced world, institutions and libraries have developed enormous digital collections and aggregated electronic journal databases to meet the needs of diverse users. However, the story is different in the developing world as digital libraries are still in their seminal phases and great initiatives have been undertaken to offer libraries in developing countries with negotiated deals of donor-funded electronic journals and access schemes to some of the available and essential journal literature. Donor programmes introduced to subsidize access to commercial journals include the International Network for the Availability of Scientific Publications (INASP), the Research4Life initiative and negotiated access schemes by Education Information for Libraries (EIFL). Harle (2010) in his research (Growing Knowledge: Access to research in east and southern African universities) observed that, the result of these initiatives have increased access to electronic journal content for researchers in Sub Saharan Africa.

Few studies have been conducted on electronic information resources in Africa which mostly relied on issues related to electronic journals appreciation and use. A study by (Okello-Obura and Magara, 2008), sought to investigate electronic information access and utilization at the East African School of Library and Information Science, Makerere University, Uganda. A survey research technique was employed and out of the 250 targeted students, 190 responded, giving a response rate of 76%. The result of the study showed that student's attitude towards electronic information resources was encouraging and that majority representing 72% of the respondents strongly believed that the standards of their academics would suffer a great deal without library electronic information resources. The study discovered that users benefited a lot from library electronic information resources which included gaining access to a wider range of information and improved academic performance as a result of access to quality and timely information. The study further revealed that the main challenges faced by students in accessing electronic information resources are inadequate networked computers, slow internet

connectivity, inability to use advanced, search options of the databases, difficulty in formulating search strategies and lack of printers in the library at low cost. It also revealed that 44 percent of respondents do not know about open access journals and 48 percent do not know the difference between refereed and non-refereed journals. In accordance with the findings, the study recommended that the speed of the Internet connectivity should be improved by acquiring more bandwidth and also lecturers should enforce the use of library electronic information resources among students. It was also recommended that the University library should provide more computers and also update faculties on new and available electronic information resources. Academic staff should sensitize students on the usefulness of library electronic information resources to research and academic work.

In the Nigerian context, Baro (2011), investigated to find out if students of the College of Health Sciences in Delta State University are aware and fully utilize the medical databases and other online information resources within and outside the medical library. The study was a descriptive study and a sample size of 350 was generated being 30 percent of the total 1050 population. The result of the study on the awareness of several online information resources showed that majority of the undergraduate students in the College of Health Sciences in Delta State University are not aware of the existence of the following online information resources: HINARI, Medline, CINAHL databases, NUC virtual library as sources of information to retrieve materials related to medical literature and therefore are not utilizing them. The findings of the study also revealed that factors such as lack of skills needed to use online resources, ineffective user education programs, slow internet speed, lack of time, and frequent power cuts are some factors mentioned that militate against their effective use. This finding agrees with Somi and De Jager (2005) who noted that undergraduate students needed the necessary skills to fully utilize online resources. The study recommended that librarians should collaborate with faculty to teach information literacy skills in the College of Health Sciences curriculum. Also, the librarians and faculty must put in efforts to create awareness of scholarly online resources

such as Medline and HINARI and teach the students the requisite skills needed to use them effectively.

In another research conducted by Amoo (2018) (citing Ojo and Akande, 2005), examined student's access, usage, and awareness of electronic information resources at the University College Hospital (UCH), Ibadan in a survey of 350 respondents. Their findings revealed that the level of usage of the electronic information resources is very low and a major problem identified is lack of information retrieval skills to manoeuvre their way around electronic information resources, thus making the level of usage of resources by medical students very low. To buttress this, a later study conducted by Kinengyere (2007), on the use of electronic information resources by four academic and research institutions in Uganda disclosed that available resources were not utilized because users were not aware of the resources, do not know how to access them, or they do not know what the resources offer. The study then concluded on the note that the availability of library electronic information resources does not necessarily mean usage. It was recommended that institutions should step up promotion to improve usage of electronic information resources of their libraries.

In Ethiopia, Natarajan (2017) investigated the use and impact of electronic information resources by information science students at Jimma University. The purpose of the study was to describe the use of library electronic information resources and services provided at the social science library of Jimma University. The survey methodology was adopted as it is the most appropriate design tool to obtain a large sample. A total of 182 questionnaires were distributed among students of information science, and 148 dully filled questionnaires were received, thus resulting in a response rate of 81.32%. The study revealed that students were aware of electronic resources with a response rate of 128 (86.5%) for e-thesis, 126 (85.1%) for INASP DBs, e-books and e-journals received a response rate of 115 (77.7%) and 110 (74.3%) respectively, whereas digital library had 97 (65.5%) and institutional repository resources had 90 (60.8%) response rate. The study also disclosed that majority of the students, 148

representing 100 percent of the students use e-resources for (preparation for) presenting a paper, followed by 140 representing 94.6 percent for research and 90 representing 60.8 percent indicated that they use e-resources to keep up to date in their subject area. The study further disclosed that the major challenge with library electronic information resources is information overload which renders it difficult to find relevant information, and this is represented by 110 (74.3%) of the respondents. The second challenge was a lack of familiarity with search techniques which was represented by 92 (62.2%) of the students. Other challenges included no assistance from library professionals 75 (50.7 %), frequent power cuts 45 (30.4 %) and system unavailability 39 (26.3%). Due to the above challenges, the study recommended that library professionals should be proactive in working with the academic community to develop training programs aimed at enhancing the effective and efficient use of library electronic information resources. A recent study by Isibika and Kavishe (2018), sought to investigate the utilization of subscribed electronic resources at Mzumbe University main library. The mixed method approach was used to collect data from 60 respondents. The findings of the study revealed that 20 respondents representing 33.3% were moderately aware of the library's subscribed electronic resources, 11 (18.3%) were slightly aware; and 14 (23.3%) were extremely aware of library subscribed e-resources. This suggests that majority of respondents were aware of the Mzumbe University Library subscribed electronic information resources and that only a few were not aware. The study also revealed that the main challenge associated with the use of library electronic information resources was unstable network connectivity, represented by 43 (71.7%), followed by 34 (56.7%) for difficulty in using the library's electronic information resources. Lack of computer facilities and lack of computer skills followed closely with 24 respondents (40.0%) and 22 respondents (36.7%) respectively. Based on the findings, the study recommended that Library users should be made aware of subscribed library electronic resources databases to influence the utilisation of these resources by using various ways such as brochures, notices, training, and flyers. Librarians should also provide users with

motivations such as stable network connectivity, which has been observed as most important in accessing and utilising library electronic information resources and also training on how to search library electronic information resources.

**2.4 Electronic information resources in tertiary institutions in Ghana**

With the increasing demand and emphasis on library electronic information resources, the introduction of electronic information resources in universities libraries is paramount. The workflow of electronic information resources over the print materials is tremendous. As a result of the digital revolution in higher institutions, researchers have expressed varying degrees of interest to investigate the state of library electronic information resources in universities around the world and Ghana is not an exception. Asamoah-Hassan (2008) (cited in Amoo, 2018), in Ghana presently, most academic and research institutions have access to a number of library electronic information resources through the coordinating efforts of the Consortium of Academic and Research Libraries in Ghana (CARLIGH). Member institutions can have more than 90,000 journals in various fields of Study.

Amoo (2018) observed that the introduction, access, and use of electronic information resources in the Ghanaian tertiary institutions have been acknowledged by several researchers including (Dadzie, 2005; Bentil, 2011; Amankwah, 2014; Budu, 2015 and Acheampong, 2016).

A further study undertaken by Amoo (2018) (cited Alemna and Adanu, 2005) that the introduction of electronic information resources in Ghana as compared to the developed world has not been too long ago. They further stated that the fullest utilization of electronic information resources to a large extent is yet to be realized in Ghanaian tertiary institutions. For instance, University of Ghana, which is the nation's Premier University acquired in its main library, its first microcomputer in 1988 as a gift from the Ministry of Education under a World Bank project citing (Badu, 1993) (cited in Amoo, 2018).

Dadzie (2005) wrote on the use of electronic information resources by students and faculty of Ashesi University, Ghana. The purpose of this study was to determine the level of use, the type of information accessed and: the effectiveness of the library's communication tools for information research and problems faced in using electronic information resources. The questionnaire-based survey was employed as a methodology for the study. It was revealed that almost 85 percent of respondents used the Internet to access information as against the 10 percent who were not frequent users. This means that majority of students were aware of electronic information resources. It was also revealed in the study that 51 percent of respondents indicated they used search engines to search for information, while 14 percent indicated that they just browsed, 13 percent of respondents used Metasearch engines and 7 percent indicated that they used the scholarly databases that the library subscribed to. The study also showed that there was quite a balance in the response for the type of information users sought from the internet: 27% of respondents specified that the information was for educational purposes, closely followed by 26% for news; 18% for entertainment and 11% for sports. The study also revealed that the main problems users had with accessing library electronic information resources included; lack of information about how to use electronic information resources, inadequate computers and lack of time to acquire skills needed to use electronic information resources. The study recommended that the university should acquire laptops for students and make a flexible payment plan for them. Also, efforts should be made in creating awareness for the existence of search tools and library resources to enable students to be conversant with a diversity of computer and web- searching skills and experience.

Korsah (2014) researched on the Use of Online databases by Postgraduate students of Methodist University College, Ghana. The purpose of the study was to find out students perception and awareness of online databases, the use of online databases and the challenges of using online databases. The survey methodology was adopted as the methodology for this study. The result of his findings showed that 55 constituting 53.9% of respondents offered

Business Administration, 31 representing 30.4% offered Social Studies and 16 demonstrating 15.7% offered General Arts. The study revealed that 100 representing 98.1% were aware of online databases while 2 representing 1.0% responded that they had no knowledge of the online databases. The study also revealed that 7 representing 6.9 indicated that the training provided by the library on the use of electronic information resources was adequate, 63 constituting 61.8% indicated that the training was somehow adequate, whiles 32 representing 31.3% indicated that the training was inadequate. In relation to Adams and Bonk (1995), training is very essential in the use of online databases. The study further revealed that 50% of respondents perceived library electronic information resources as useful to use and actually use them, 42 respondents constituting 41.2% indicated library electronic information resources to be quite useful, 3 respondents representing 2.9% indicated that library electronic information resources are not too useful, 6 respondents representing 5.9 indicated not at all useful against perceived usefulness and use of online databases. The study also showed that there were various challenges encountered by respondents when using online databases. 89 respondents representing 92.7% indicated slow network to be the major challenge, followed closely by 88 respondents constituting 91.7% for unstable network as the second major challenge. 72 respondents representing 75% indicated power outage and 3 respondents constituting 3.1% indicated non-availability of required information. In conformity with the findings, it was recommended that MUCL should intensify their awareness campaigns concerning the availability of electronic information resources. Since the study revealed that slow network was a major problem in MUCL, it was recommended that IT experts should be employed to upgrade and solve network problems to enhance access to available resources. It was then suggested that more training programs should be organized by the library for postgraduate students.

Amankwah (2014) wrote on use of electronic information resources by undergraduate students of the Ghana Institute of Management and Public Administration (GIMPA). The purpose of the study was to find out the awareness, use and knowledge and problems associated with the

use of library electronic information resources among students at GIMPA. The methodology adopted for the study was the survey method and a sample size of 80 participants were selected which represented 10 percent of the total 802 population. The result of the study indicated that majority of students were aware of library's electronic information resources with a response rate of 67(84.8%) for CD-ROM, 24(30.4%) for OPAC, 73(94.4%) for Academic Database and further 64(87.3%) were aware of D-space (Institutional Repository). It was also revealed that 50 constituting (66%) of the respondents admitted that library electronic information resources are very important and 48 constituting (54%) stated that library electronic information resources are more useful compared with print resources. The results further showed that majority of respondents do searches to complete assignment, write projects, and update lesson notes. However, few of the respondents use library electronic information resources for research and update on new information. The results specified that 86.0% of the respondents are certain that poor internet connectivity is a major setback related to the use of library electronic information resources. 82.2% of respondents also specified power outages as another major drawback. 73.4% of the respondents indicated that inadequate access location hindered the efficient use of library electronic information resources. 72.1% of respondents also specified that inadequate computers in the library was a major challenge. Lack of information on how to use library electronic information resources was also indicated by 46.8% of respondents as another drawback. 58.2% of respondents stated that insufficient skills also bring about problems in accessing electronic resources. However, a few of the respondents, 5 signifying 6.3% stated limited titles as a problem for using the library electronic information resources. Based on the results, the study recommended that electronic information resource training should be added to the student's curriculum and if possible credited to their academic performance.

Accessibility of library electronic information resources should be improved by providing more computer workstations and data accessibility points through campus wireless network. Also,

all databases subscribed must be appropriate and related to faculty and students fields of study. It was also suggested that internet connectivity and power generation should be improved for better services.

Ankrah and Acheampong (2017), researched into students use of electronic information resources in University of Professional Studies. The purpose of the study was to investigate student's awareness and extent of use of the available electronic information resources. The social survey research methodology was adopted for this study. The findings showed that 494 (91.0%) of the respondents were aware of the library electronic information resources, while only 46 (9.0%) were not. This shows clearly that majority of respondents were aware of library electronic information resources. The findings similarly showed that more than 75% of the respondents have been using the electronic information resources of UPSA Library for at least about a year. The study then revealed that users faced some challenges when using the library electronic information resources. Majority of the respondents (40.2%) indicated that internet access speed was slow, whereas a small proportions of them (about 10% or less) mentioned privacy problems, challenge in finding relevant information, overload of information on the internet, network failures sometimes, lack of skills, poor user interface design of some electronic information resources of the library, overcrowding of the library's electronic information resources section by students due to the limited number of available computers and the heat generated in the library as some of the challenges they faced. However, almost a quarter (23.8%) of the respondents did not indicate any challenges in their usage of the library electronic information resources. The study concluded that library electronic information resources are very essential and add great value to library collections and satisfy the unique needs of students, faculty and research scholars with less risk and time and therefore recommended that users of electronic resources should be trained and taught advanced search strategies and the use of controlled vocabulary languages to make electronic search process much easier and faster. Also, non-users should be identified and appropriate steps should be

taken to train and transform them into actual users of library electronic information resources. Additionally, the library's webpage must be designed in a way that will provide guides online and various search options to electronic information resources. These, when initiated will help maximize the usage of electronic information resources of academic libraries. In a comparative study by Bentil (2011), she wrote on the use of electronic information resources in Ghanaian universities. The purpose of the study was to investigate the level of awareness and use of electronic information resources by postgraduate students of Central University College and the University of Cape Coast. The study revealed some level of unawareness by postgraduate students and faculty members at Central University College (CUC) and University of Cape Coast (UCC). The findings showed that out of 103 and 47 postgraduate students sampled from UCC and CUC respectively, 2 (1.9%) from CUC were not aware of electronic information resources (EIR). However, results from CUC is in sharp contrast with the result from UCC indicating a very low awareness rate (42.6%) given that 57.4% of postgraduate students from CUC were not aware of EIR. In a similar comparative study by Budu (2015) at Akrofi Christaller Institute (ACI) and Ghana Technology University College (GTUC), the purpose of the study was to find out the level of use of electronic information resources by students for research and learning at the Akrofi - Christaller Institute of Theology, Missions and Culture (ACI) and the Ghana Technology University College (GTUC). The survey research methodology was adopted for the study. It was revealed that ACI recorded (100%) awareness level of all 17 respondents. However, at GTUC 16 respondents out of 103 representing 15.5% were unaware of the availability of EIR (e-journals) in the University with poor publicity as a major cause. The combined findings from ACI and GTUC revealed that majority of students, 106 (88.3%) out of 120 respondents used EIR for effective studies. This was followed closely by 103(85.9%) of respondents indicating assignment undertaken as their main purpose for using EIR. 97 representing 81% indicated that they use library electronic information resources to improve academic performance and 95 constituting 79.1% indicated that they use library

electronic information resources to prepare adequately for examinations. The study also established that the main problem associated with the use of EIR is slow internet speed. The issue of recurrent power outages also came up strongly with 21(17.6%) and 27(22.3%) of respondents from ACI and GTUC respectively indicating so. Other challenges included high internet cost, inadequate searching skills and limited access to computers. In conclusion, it was recommended that university management at ACI and GTUC should increase funds in ICT infrastructural facilities such as computers, the Internet, e-journal subscription charges, virtual/digital libraries to conform to new development of universities around the world. Also, there should be a conscious effort by university management to ensure reliable and continues supply of electricity at all time.



**2.5 Awareness of library electronic information resources.**

According to Ebenezer (2016) (citing Hawthorne, 2008) the library profession recognized the potential of computers to make library resources more accessible early in the development of computer technology. Librarians were often enthusiastic and sometimes early adopters of technology. The use of electronic information resources in libraries began with the development of the machine-readable cataloguing (MARC) format in the mid-1960, a full 30 years before the introduction of the World Wide Web and its subsequent ubiquity. Bibliographic databases became available at approximately the same time. During the microcomputer revolution of the 1980's, libraries acquired software and data on diskettes and offered databases on CD-ROM. Search interfaces became more straightforward and simpler to use. Online catalogues became more common, and libraries began to offer them through the pre-World Wide Web Internet.

Ebenezer (2016) continues to say that, the graphical interface and the later development of Web search engines such as Yahoo made resources on the Internet more accessible to average patrons. Web-based library electronic information resources were widely available beginning

in the mid-1990. Libraries offered Web-based catalogues, bibliographic and full-text databases, electronic journals, and eventually electronic books through the Web. Patrons no longer had to go to the library to do a significant amount of their research. Electronic information resources began to dramatically change the way patrons accessed library resources in the mid-1960. Numerous researches have been carried out about the awareness of library's electronic information resources. Ansari and Zuberi (2010) conducted a similar research at the University of Karachi and found out that library electronic information resources were widely used in universities.

Ani (2010), the internet is now a global tool to achieve a better educational outcome of different nations, particularly in developing countries. The use of internet in Nigerian universities among the students is pervasive and innovative. The transition from print to electronic medium, apart from resulting in a growth of electronic information, has provided users with new tools and applications for information seeking and retrieval that take their idiosyncrasy into account (Tsakonas and Papatheodorou, 2006).

Madhusudhan (2010) as cited in the works of (Ebenezer, 2016), a research conducted on availability and use of electronic information resources indicated that library electronic information resources and services had become the most popular tools for research and academic activities. Library electronic information resources are highly preferred to the printed format and were being well utilized compared with CD-ROM databases (Swain and Panda, 2009). Kumar and Sampath (2010) established that academic library's electronic information sources were used because they provided faster and reliable information.

Furthermore, Madhusudhan (2010) (cited in Acheampong, 2016) that; as the number of electronic journals grows every day, libraries are interested in subscribing to them considering their benefits over print media. An example is University of Professional Studies, Accra library who subscribes to Emerald, JSTOR, Sage and Taylor and Francis among others to assist students to have enough information for their academic works. He went further to indicate that

there is a dramatic shift from print collections to electronic collections which is having an impact on library patrons and on library functions. He further discovered in his study that the Kurukshetra University met the academic community's expectations since it had then expanded its library services to provide electronic resources.

Also, Acheampong (2016) (cited Ming-der, 2012) in his study on how graduate students perceive, use, and manage electronic information resources discovered that the primary source for graduate students searching for documents was the website. 15 respondents reported that they preferred to search for relevant documents from the library web site first, before a search on the internet. Three students (science and technology students) reported that they typically start with Google Scholar because they could conveniently retrieve a large number of documents from it.



### 2.5.1 Level of computer skills and use of electronic information resources

Efficient usage of library electronic information resource cannot be effectively exploited without the aid of computer skills. Nonetheless, the basic rudiments of computer skills are so important to student's to access the right information they desire for effective learning and research purposes. Computer literacy is the ability to use and effectively alter the formations of computer system to arrive at a desired information. Otokunefor (2005) (cited in Ebenezer, 2016) explained computer literacy as the level of computer knowledge of an individual and the degree to which such knowledge can be used in problem solving. Hence, computer literacy can also be seen as the skill to accomplish preferred outcomes through the aid of computer. Amoo (2018) (citing Saadi, 2002) for information seekers, when it comes to computer literacy there are virtually three components; proficiency with specific software programmes, knowing how to use at least one computer operating system and understanding of basic computing principles. To use the computer effectively to source for information mainly dwells on the experience or knowledge of the user with regards to search system. Furthermore, the proficiency to retrieve, locate, identify and manage information successfully can be a transmissible skill beneficial for

lifelong learning aimed at propelling human development. It's therefore important for students to effectively obtain computer skills basically building their information literacy skills which are aspects of literacy skills to enable them access and make effective utilisation of electronic information from various sources geared at improving their educational facets. Moahi (2009) postulated that ICTs have enabled information to be effortlessly managed and made accessible in universities.

Information Technology competencies, expressed in the broader term information literacy refer to individuals competencies of using computers, software applications, databases, and other technologies to achieve a variety of goals (Association of College and Research Libraries ACRL, 2005). This consistent with Ebenezer (2016) in a similar research revealed that majority of the respondents had an intermediate knowledge in ICT. The highest respond's rate was at the intermediate level indicating that they were fairly computer literates. It can therefore be deduced that, a little of ICT proficiency is required by users in order to effectively use e-resources. Computer literacy skill is a key factor to an effective and efficient use of library electronic information resources. However, they established that undergraduate students self-reported that they were computer information skilled, but their knowledge with regards to information searching skills were unsatisfactory. Computer literate persons are mostly seen using electronic information resources at ease since electronic information resources involve the use of computers Gross and Latham cited by (Ebenezer, 2016). Furthermore, Amoo (2018) (citing Shaheen, 1999) revealed in a study that the use of electronic information sources and services are inspired by factors such as computing skills among others. Amoo's findings revealed that a majority of faculty members with very good and excellent computing skills regularly utilised electronic information sources and services. However, the use of these sources and services was not encouraging among faculty members with less computer literacy. Computer literacy and use of electronic information sources and services significantly exist a

strong relationship. It is appropriate that sufficient emphasis be given to maturing basic computing skills through user education programmes targeting library users.

End-users who are very much inclined in computing are more likely to in pole position to benefit from the increasing volume of library electronic information resources Amoo (2018). Ebenezer (2016) (cited Majid and Abazova, 2012) discovered a positive correlation between the level of computer literacy and usage of library Online Public Access Catalogue (OPAC). Faculty members with good and excellent computer skills are motivated to use OPAC better than those with less computer skills. In support of Ebenezer (2016) a study by Callinan (2005) discovered that undergraduates had trouble finding course-related materials because they were unfamiliar with library computer systems. Although undergraduate students are currently familiar with Internet use, they are not sufficiently fluent with Information and Communication Technology (ICT), and are less fluent than their perceptions (Bentil, 2011). Ani (2010) mentioned that professors might believe students to be computer literate, but most students cannot demonstrate foundational skills for information research.

The Diffusion of Innovation Theory (DIT) states that an individual's technology adoption behaviour is determined by his or her perceptions regarding some factors of which include norms. Thus, for an individual to adapt to the use of a technology, he or she considers the norms regarding the use of that technology. To most of the respondents, a norm surrounding the use of electronic information resources is a user's computer literacy skills. Thus, to the respondents, an individual's computer literacy skill influences his or her use of electronic information resources. The Diffusion of Innovation Theory therefore conforms to this finding. Information technology competencies, expressed in the broader term information literacy refer to individual's capabilities of using computers, software applications, databases, and other technologies to achieve a variety of goals (Association of College and Research Libraries ACRL, 2005). This consistent with Ebenezer (2016) in a similar research revealed that majority of the respondents had an intermediate knowledge in ICT. The highest respond's rate was at

the intermediate level indicating that they were fairly computer literates. It can therefore be deduced that, a little of ICT proficiency is required by users in order to effectively use library electronic information resources. Computer literacy skill is a key factor to an effective and efficient use of library electronic information resources. However, they found that undergraduate students self-reported that they were computer information proficient, but their knowledge and information searching skills were insufficient. Computer literate persons are mostly seen using library electronic information resources at ease since library electronic information resources involve the use of computers Gross and Latham cited by (Ebenezer, 2016).

Ebenezer (2016) further indicated majority of the respondents agreed that computer literacy was necessary to maximize the use of e-resources. Some of the reasons included: It would be difficult and time-wasting for a non-computer literate person to use library electronic information resources mainly because the library electronic resources are sometimes complicated. One cannot use for example, search engines efficiently if he or she had no computer literacy skills. In addition, library electronic information resources are based on information technology architectures, and it takes a computer literate person to understand IT architectures. The above reasons was further reiterated by the head of electronic information resources at UPSA why computer literacy was important for the use of electronic information resources. Being a computer literate makes an individual enjoy using library electronic information resources. However, the minority hinted that the use of library electronic information resources is a routine process and can be learnt without necessarily having knowledge about ICT.

**2.6 Information seeking behaviour**

Information searching and that of acquisition process involves many aspects, such as passive attention, passive search, active search and ongoing search (Gyesi, 2016).

Active search and ongoing search in relation to educational sector are so important, as active information managing is an ingredient necessary for attainment of knowledge. Ongoing search is highly demanded in the teaching, learning, and research, and as this form of search comprises a basic framework of ideas, beliefs, values, or any other requisites to update or expand one's knowledge (Gyesi, 2016).

Gyesi (2016) (citing Niedzwiedzka, 2003), passive attention is an un-purposive seeking for information from the environment such as watching the television or listening to the radio. Passive search is a type of behaviour that results in the acquisition of information that users regard as relevant. Active search is when a person is actively immersed in seeking information. Finally, ongoing means persistent search undertaken in order to develop or update an area of interest.

Al-Muomen, Morris and Maynard (2012) carried out a study information seeking behaviour at Kuwait University, exploring the information seeking behaviour of graduate students at the university and investigates the factors that influence their behaviour. The study relied on mixed methods making up of questionnaire, focus group discussions, and semi-structured interviews. 370 respondents made-up the study, it involved more females (67.0%) than males (33.0%). The study indicated, majority sought for information to complete their course work (69.2%). This was followed by term papers (42.4%), comprehensive assignments (20%), and the remaining was for other reasons such as writing research papers, looking for information related to their thesis, and browsing for general information. Subsequently, the study also sought for the sources of helps when they faced difficulties in terms of searching; most of them said they receive help from their friends/colleagues (62.2%) and tutor/lecturers (37.3%).

Gyesi (2016) used Likert scale made-up of seven points which reveal that the difficulties of seeking information were access to the internet, computers, and printers (Likert scores 5.55-5.30) with interlibrary loans being the least at 3.82. Likert scale was used to represent people's attitude of the study. Daqing et al. (2011), also carried out a research title undergraduate

students' interaction with online information resources in their academic tasks; a comparative study, this was done in the U.S.A and Chine respectively. They wanted to identify undergraduate student's impression with regards to internet-based information resources, how important they are in undertaking academic tasks.

One of the reasons they under took this study had to do with the fact that undergraduate students are special bread of population representing a transitioning group from learners in information seeking to users with multifaceted experience in relation to information seeking behaviours (As learning and training of students continue in the colleges and universities in both physical and digital information resources, their experience and skills improves over time). As undergraduates they are highly inexperience when it comes to online search and hence to support them better is imperative to study their information seeking behaviour. Another reason which motivate studying internet-based information sources is that, students often source for academic information from various online resources. This is confirmed by OCLC report (De Rosa et al, 2005) information seeking activates of undergraduates starts with internet base information resources, as they have up solute trust in these online resources.

Fasola and Olabode (2013) also reported on a study about information seeking behaviour of students of Ajayi Crowther University, Oyo, and Oyo State, Nigeria. The study sampled 200 student using a well-structured questionnaire. The study observed that most of the users seek information for academic purposes (66%). In addition, are current affairs (15.6%), industrial attachment (7.6%), recreational (6%) and social information (4.8%). The study revealed that most of the students use the library (62.8%) as their main source of acquiring information materials. This is followed by the internet sources (20.8%), personal collection (10.4%), and colleagues (6.0%). The majority were also very satisfied (53.2%) with sources of information. Their findings came out that a majority of the students faced lack of internet connectivity in seeking information. Challenges such as information scattered in too many sources, non-

supportive library staff, lack of awareness of what, unavailability of materials, as well as out dated information materials are the other challenges identified.

**2.7 Reasons for use of electronic information resources**

Ebenezer and Diana (2018), today's electronic environment, the role of library has advanced to meet the demands of technology evolution. The benefits of electronic information resources are invaluable because they serve as research tools that complement the print based resources in a traditional library setting. They outlined the benefits of electronic information resources as, access to information that might be limited to the user because of distance or finances, and access to more current information. Therefore, advancement in technology makes it possible for libraries to adopt modern trends of technology to organize their collections and improve service delivery. Certainly, current and up to date information can be found in electronic information resources which can be beneficial to information seekers. Ani (2013) admitted that the application of information and communication technology in library and information services helps in the provision of timely information in higher learning institutions to promote academic work and increase research productivity. In addition, academic libraries of late serve as storehouses of information and knowledge for both local and remote users. Ebenezer and Atuase (2018) further opined that electronic information resources are tools that assist in conducting research. Electronic information resources are therefore important tools in the academic process of higher education learning. This provides university libraries the ability to influence teaching, learning and research in higher educational institutions (Bature, 2009). The major benefits of electronic information resources in the university library ease access to the needed information, since users can access information without their presence in the library. Electronic information resources therefore promote efficacy in information dissemination for research purposes in universities (Thanuskodi, 2012).

Katabalwa (2016) researched on the use of electronic journal resources by postgraduate student at the University of Dar es Salaam. The study was conducted to assess the extent to which postgraduate students use electronic journal resources and the challenges encountered. The study revealed. that a greater percentage of users representing 69.2% stated that the main purpose for using electronic journal resources was to answer assignment questions, followed by 59.3% respondents who reported that working on dissertation/thesis was another popular reason for using electronic journal resources. The study is in line with Budu (2015), who also reported that electronic journal resources have been very significant to students when working on the dissertation and thesis. Additionally, 38.5% of respondents stated that they used electronic journal resources for literature purposes; 35.2% for proposal writing, 31.9%. They include looking for information for assignment, class presentation/seminars, updating of lecture notes, project work/thesis and new arrivals (new library resources). Majority of the respondents indicated that they look for information on career development (80.0%), followed by self-development (66.1%), current affairs (61.7%), and employment (61.7%). Other reasons are entertainment and politics (34.8%), global information (33.9%), health, and football (33.0%), higher education (27.8%), recreational activities (23.5%), sports (20.0%), and religion (13.9%). The findings indicated that apart from student academic work, students were also concerned about their future. This is clearly shown by the high percentage of students looking for information on career development, self-development and employment were other reasons students significantly used the resources. In other words, they are highly determined to join the working class soon after completing their degree. Other students also aspire to continue their education after graduation, hence looking for information on higher education.

In a similar research carried out by Ebenezer and Diana (2018) significant number 147(57.9%) of respondents indicated that they preferred to access information from other sources such as Google search, Google scholar, Yahoo, Wikipedia and amazon more than once a week while 72(28.6%) respondents accessed them on daily basis. In addition, 67(26.7%) respondents'

accessed Emerald databases more than once in a week and 47(18.7%) respondents accessed it on daily basis. In addition, 45(17.9%) of them accessed information from EBSCO host more than once in a month while 36(14.3%) respondents rarely accessed them. Meanwhile, HINARI, Francis & Taylor and Sage databases had low patronage because 64(24.2%), 54(21.4%) and 53(21.3%) respondents respectively indicated that they rarely accessed them. The emerging trend from the analysis is that awareness of electronic information resources by postgraduate students did not influence their access of them. These may be due to some challenges that are subjective to them. In another research by Khan, Khan, and Bhatti (2011) students use ScienceDirect (25%), EBSCO (17%), Springerlink (13%), JSTOR (11%), Emerald (7%) and 5 Cambridge Journal (5%). The difference was that Khan, Khan, and Bhatti (2011) investigated Science Masters students, and not Arts students. That is the reason why science direct had the highest percentage in terms of usage.



**2.8 Usefulness of electronic information resources**

Acheampong (2016) (cited Bentil, 2011) indicated that, the use of library electronic information resources is important for users simply because the data bases enabled enhanced, easy and faster access to information than print media provides. In that case, library electronic information resources could be heavily relied upon for current information and at the time of need. Wu and Chen (2012) also carried out a study how graduate students perceive, use, and manage electronic information resources, in the study users were asked to rate the essence of library electronic information resources on a ten-point scale, 1 representing (extremely unimportant) to 10 (extremely important). 9.17 emerged as the average score, which means that students consider library electronic information resources extremely essential in the discharge of their academic activities. Ebenezer (2016) also confirms that the respondents opinions on the significance/impact of library electronic information resources on their learning abilities were that; majority indicated that library electronic information resources make them

retrieve information with ease, whiles, it helps them to expand their knowledge-base followed closely and the least significant /impact was recall what I have learnt easily. Bentil (2011) (cited in Amoo, 2018) states that the use of library electronic information resources is necessary for users mainly because the electronic resources provide better, faster and easy access to information than information accessed through print media. In other words, they could be relied upon for timely information thereby providing access to the right information at the right time. In the same vein, studies by Tenopir (2003) indicated that libraries preferred digital collections for many reasons of which include but not limited to the following: digital journals can be linked from and to indexing and abstracting databases; access can be from the user's home, office, or dormitory whether or not the physical library is open; the library can get usage statistics that are not available for print collections; and digital collections can easily be maintained and as well save space and time.

Okello-Obura and Magara (2008) investigated electronic information access and utilization at the East African School of Library and Information Science, Makerere University, Uganda. The findings revealed that users derived a lot of merits from library electronic information resources such as; gaining access to a wider range of information, and improved academic performance as a result of access to quality information. Amoo (2018), on the other hand, patronage of online databases by clients have been on the low and some reasons for their low patronage were; lack of awareness of electronic information resources, lack of time to access electronic information resources, and too many passwords to remember.



### 2.9 Promotional strategies in marketing library electronic information resources

Marketing is a continuous service for managing information services. As part of a marketing strategy, university libraries need to be actively involved in marketing of information products and services to ensure proper use of resources (Makori, 2010). In an environment of cost cutting and elimination of waste, it becomes inevitable that the university library will eventually focus

on the information service, look at the costs which it incurs and determine value adding in relation to the financial input to the service.

In a university library with large information collection, it is inevitable that part of the collection may be relatively underused, overlooked or used only occasionally. In most university libraries there are information collections that are hardly used since the user population does not know about their existence (Badu, 2015). The information that is seldom being used or not being used at all has the potential for exploitation and it should be promoted. Such collections could have a much wider audience if brought to the existence of the user population through marketing activities. It is the willingness to help customers and to provide prompt service. This dimension emphasises attentiveness and promptness in dealing with customers' requests, complaints and queries. Responsiveness is demonstrated in terms of accessible employees, least waiting time and attention to problems (Alman, 2014).

Lamptey (2016), in a university library the starting point in marketing of information products and services is to develop and design an appropriate strategy. Marketing is not just about developing and promoting new products and services, but about bringing awareness to the various users of existing products and services as well as determining their appropriateness. A marketing strategy needs to be developed and implemented as an ongoing process. The result is to make the library to be vibrant to the needs and demands of the university and the information audience.

Alemna (2001) cited in Anafo (2014) indicated it was evident from various studies that the only solution that can make libraries get back to its previous position as major providers of academic and research information is by adopting the marketing concept. Alman and Swanson (2014) purported that the motive for promoting library resources and services is to generate user and non-users awareness about the availability and quality of such resources and services, therefore promotional activities must be packaged to enable them to act. Obeid (2014) indicated that marketing techniques must be designed such that it can win users attention and must

provide reasons why library services and resources should be considered the best to their competitors. Habib (2019) (cited Yi, 2016) outlined tools and techniques into three, namely; electronic media, events and printouts. They were identified and measured in terms of their effectiveness such as effective, more effective and most effective. This tools were used to promote library resources and services and as such professional librarian in question used different kinds of techniques. The three tools and techniques were examined. It came out that a high percentage that used electronic/digital techniques such as library websites and social media were found with high percentage being the most reliable technique for promoting activities in the libraries. Similarly, Habib (2019) (citing Garoufallou et al., 2013; Khan and Bhatti, 2012) highlighted that the most effective promotion techniques are the library websites and social media which recorded a high percentage of digital media techniques. Library websites are digital websites that represents the library and its access portal services and products and acts as values of the library. With regard to the event promotion technique, Yi (2016) indicates that a high percent demonstrated the effectiveness and importance of human affection with regard to promotion of services and resources. In this regard, the use of face-to-face, training, workshops and one-on-one conversation were considered the best techniques for promotion of library services. According to Malekani and Benard (2018) with the use of event promotion techniques, majority of the participants acknowledged the need for using face to face events, training session, exhibits, brochures, leaflets, posters and workshops. Academic libraries are relocating on to internet information resources at an increasing rate. They also believe that the new ways by which information is access creates the chance for one-to-one interactions such as classroom instructions, face to face and training programmes which broadens the knowledge levels of users. Yi (2016) also found social media as an effective technique where information can easily be transferred, and states that the era where libraries were seen as sole places where information was obtained has passed and stressed the need for libraries to be innovative and interactive with their users and create a condition where users



can come together to seek and share information. This substantiates the findings of Polger and Okamoto (2013) when they indicate that a high percentage of libraries relied on social media to link up to their clients and potential clients. Their findings conclude that social media such as Facebook, Twitter and YouTube were the techniques used by most libraries. The use of telephone calls, direct mailings, displays, circulars, personal contacts and meetings were found to be effective tools and techniques used in promoting services in many libraries (Habib, 2019) citing (Nkanga, 2002). Similarly, Bhardwaj and Jain (2016) found other forms of techniques that were widely accepted in promoting library services. These techniques include; combining outreach programmes, giving out lectures, alternating library exhibits, library tours, classroom interactions, one-on-one meetings and library websites. Edewor et al. (2016) added that the common promotional approaches used by many university libraries in marketing their services were flyers, library publications, posters, websites, radio, e-mail, and social media tools such as Twitter, Facebook and blogs. It was also evident that most used techniques were library publications (memos, bulletins, and newsletters), orientations and library websites. As such they, concluded that the social media tools were not effectively used. The study of (Habib, 2019) found that many librarians were comfortable with the use of notice or announcements boards, library guides, information literacy sessions, library websites, posters, newsletters, and brochures etc. as promotion tools in marketing their services. Habib (2019) further revealed that the major technique used was the in-coming fresh students' orientation. This was confirmed in the responses given by the students as it was found that more than three-quarters of them agreed that such technique was available in their libraries.

Habib (2019) concluded that the use of leaflets and posters, brochures and flyers, user education, personal letters, one- on-one discussion with users, suggestion boxes and organizing of library week were found not to be effectively practiced by the selected libraries he understudied. Opala (2017) on school libraries in Nairobi, Kenya reported the importance of using social media tools in marketing of library services and emphasized the need for libraries

to them. It was, however, found that the selected libraries did not consider these tools in promoting their services as this was evident from the responses of both category respondents. Mobile phones have become so common that using the mobile apps for marketing of library services could be more effective. Aremu and Saka (2014) reported an increase in smart phone usage in their study on the impact of Information Technology (IT) on library management in academic libraries in Oman which they said has created new opportunities for libraries to get in touch with their users. It was however, unfortunately found from the study that the selected libraries did not make good use of the Information Technology in their promotion activities. Meanwhile, libraries of today have depended so much on IT in reaching out to their clients without the latter physically presenting themselves into the library building.



# CHAPTER THREE

## 3.0 METHODOLOGY

### 3.1 Introduction

This chapter presents the research methods and procedures employed to gather research data. It further describes the research design adopted in the study, such as the sampling procedure data analysis and the data and the interpreted results generated.

### 3.2 Brief description of the study area

The study was conducted in the Nyankpala and Tamale campus of the University for Development Studies (UDS) in the Northern region of Ghana. The Nyankpala campus is in Nyankpala in the Tolon District and the Tamale campus is in Dungu, in the Tamale Metropolis. UDS is the first public university in the five northernmost regions of Ghana established by PNDC Law 279 in May 1992. The University was established with a unique mandate of blending academic work with that of the community engagement in order to facilitate the total development of Northern Ghana, in particular, and the country as a whole. The University, whose mission is "to be a Home of World Class Pro-Poor Scholarship" has unique ideas on higher education and research that emphasise the need for the Universities to play a more active role in addressing problems of the society, particularly in the rural areas (Effah 1998).

The University operates a multi-campus (five campuses at the start) and it was only recently (February, 2020) when two of its campuses (i.e., WA campus in Upper West Region and Navrongo campus in the Upper East Regions) were converted to autonomous universities. Currently, the University has three campuses: the Nyankapala campus, the Dungu campus, and the city campus. The University began academic work in September 1993 with the first batch of thirty-nine students admitted into the Faculty of Agriculture, (FOA), in the Nyankpala campus. As at the time of this study, UDS student enrolment stood at 12,721 for both graduate

and postgraduates' students in the three campuses offering courses ranging from sciences, social sciences, business, and humanities (vice-chancellor's report, Nov. 2019).

### 3.3 Research Design

In the context of this study and considering the study's objectives, survey research design was employed as a guide in carrying out the study.

A survey design is a most basic type of enquiry that aims to observe and gather information on certain phenomena, often at a single point in time, using cross-sectional data. This is to examine a situation by describing important factors such as demographic and socio-economic, behaviours, attitudes, experiences, and knowledge (Kelley, Clark, Brown and Sitzia 2003). In survey research design data is often collected using questionnaires which intend allows for easy comparison. In confirmation of the reasons above, Saunders, Lewis and Thornhill (2007) (cited in Egberongbe, 2009) state that the survey strategy is perceived as authoritative by people in general and is both comparatively easy to explain and to understand. The survey research permits one to collect quantitative data for a quantitative analysis using descriptive and inferential statistics. According to Ankrah (2014), a research design is made up of two main processes namely; research methods and data collection. According to babbie (2010), research design is seen as a blue print for research work considering the kind of questions to answer, what type of data expected to collect as well as how to analyse the results. Research design is the complete plan used to obtain answers to the questions being investigated and for managing some of the challenges encountered during a research process. The research design normally specifies which of the numerous types of research approaches would be employed.

A broad quantitative approach was adopted, and the survey research design been primarily descriptive, as it went a long way to help achieved the above set objectives.

The researcher also use a detailed well-structured questionnaire as instrument for data collection since specific and standardised information was required, this was adopted from

similar studies (Amankwah, 2014; Gyesi, 2016 and Amoo, 2018). The questionnaire was made up of both open-ended and close-ended questions. This was distributed among students and to the head of library electronic information resources of the target study area to solicit in-depth information regarding the topic under study.

For the study, the researcher depended only on students of the Nyankpala and Dungu campuses of UDS, also, it excludes students offering distance learning and sandwich courses hence the omission of the city campus from the study. The City campus offers graduate, sandwich and distance learning programs. The total number of regular students of both campuses was obtained from a secondary source that is the Academic office of the university to determine the sample size of the study.

It is worthy of note that, UDS used to have three campuses: Nyankpala/Tamale campus, Navrongo campus and WA campus. During the time of the research 2 universities were curved out from UDS. These include the Navrongo campus now known as Charles K. Tedam University of Technology and Applied Sciences (CKT- UTAS), and the WA Campus known as the Simon Diedong Dombo University of Business and Integrated Development Studies (SDD- UBIDS). They were made autonomous making them fully fletched universities. As a result of that, my study had to be reduced to only Nyankpala and Dungu campuses of the UDS, respectively.



### 3.4 Study Population

The research used full-time undergraduate students at the University for Development Studies from the Tamale and Nyankpala campuses. Sandwich and distance learning students were excluded hence reducing the total student population from 12,721 to 10,118. Their exclusion was mainly due to the availability of full-time students on campus during the fieldwork. The study population was 10,118 undergraduate students at the University for Development Studies studying various courses ranging from Medicine, Education, Agricultural technology, Social

change communication, Agricultural engineering among others. The total student population on both campuses stood at 12,721 at the time of the study (vice-chancellor's report, Nov, 2019). Cooper and Schindler (2001) (cited in Albert Oppong-Ansah, 2018) ) defined population as the total collection of elements about which we wish to make inferences. Also Harter (1980) define population as any set of persons or subjects that possess at least one common characteristic. Similarly Lewis, and Thornhill (1997) defined population as a set of cases from which sample is taken. According to Alreck and Settle (2010) (cited in Ankrah, 2014) respondents in a population must possess the information required for the study.

Dzandu and Boateng (2013) undergraduates were used because they were likely to frequent the library to gain access to resources for their academic work, such as accessing information for assignments, term papers, presentations, theses and dissertations. Kwesi Gyesi (2016), indicated that undergraduates understand and use the internet better. They also rely heavily on electronic resources during the final year of their study for their dissertation or research. The undergraduate students at the University for Development Studies are a unique segment of the student population. This supports Peil's (1995) view that elements that make up the population should be identical, either by living together in a defined territory or having a common nationality.

The above literature informed the determination of population for this study which comprises of all regular undergraduate students in Nyankpala and Dungu campuses of the University for Development Studies. The list of all students was sourced from official sources of the University and this constituted the sampling frame from the final sample was drawn,

**Table 3.1: Undergraduate Student Population based on campuses**

| | **Dungu campus** | |
|---|---|---|
| | **Faculty/School** | **Students** |
| **a.** | School of Medicine and Health Sciences (SMHS) | 688 |
| **b.** | School of Allied Health Sciences (SAHS) | 2,603 |
| **c.** | Faculty of Education (FoE) | 5,035 |
| | **Sub Total** | **8,326** |
| | **Nyankpala Campus** | |
| | **Faculty/School** | **Students** |
| **a.** | Faculty of Agriculture (FoA) | 1,385 |
| **b.** | FNRE | 276 |
| **c.** | School of Engineering | 131 |
| | **Sub Total** | **1,792** |
| | **Grand total** | **10,118** |

**Source: (UDS, Vice-Chancellor's Report, 2019)**

### 3.5 Sample size determination

Using the sample size determination table by Krejcie and Morgan (1970) in table 3.2 and with the total population of ten thousand one hundred and eighteen (10,118), the sample size was settled as three hundred and seventy-three (**373).**

A sample size explains the specific number of elements that will be selected from the population or universe for the study (Kothari, 2010). Kothari stated that a sample should not be too large or too small but fairly representative of the population.

**Table 3.2: Sample size with a given population by Krejcie and Morgan (1970)**

| N | S | N | S | N | S | N | S | N | S |
|---|---|---|---|---|---|---|---|---|---|
| 10 | 10 | 100 | 80 | 280 | 162 | 800 | 260 | 2800 | 338 |
| 15 | 14 | 110 | 86 | 290 | 165 | 850 | 265 | 3000 | 341 |
| 20 | 19 | 120 | 92 | 300 | 169 | 900 | 269 | 3500 | 346 |
| 25 | 24 | 130 | 97 | 320 | 175 | 950 | 274 | 4000 | 351 |
| 30 | 28 | 140 | 103 | 340 | 181 | 1000 | 278 | 4500 | 351 |
| 35 | 32 | 150 | 108 | 360 | 186 | 1100 | 285 | 5000 | 357 |
| 40 | 36 | 160 | 113 | 380 | 181 | 1200 | 291 | 6000 | 361 |
| 45 | 40 | 170 | 118 | 400 | 196 | 1300 | 297 | 7000 | 364 |
| 50 | 44 | 180 | 123 | 420 | 201 | 1400 | 302 | 8000 | 367 |
| 55 | 48 | 190 | 127 | 440 | 205 | 1500 | 306 | 9000 | 368 |
| 60 | 52 | 200 | 132 | 460 | 210 | 1600 | 310 | **10000** | **373** |
| 65 | 56 | 210 | 136 | 480 | 214 | 1700 | 313 | 15000 | 375 |
| 70 | 59 | 220 | 140 | 500 | 217 | 1800 | 317 | 20000 | 377 |
| 75 | 63 | 230 | 144 | 550 | 225 | 1900 | 320 | 30000 | 379 |
| 80 | 66 | 240 | 148 | 600 | 234 | 2000 | 322 | 40000 | 380 |
| 85 | 70 | 250 | 152 | 650 | 242 | 2200 | 327 | 50000 | 381 |
| 90 | 73 | 260 | 155 | 700 | 248 | 2400 | 331 | 75000 | 382 |
| 95 | 76 | 270 | 159 | 750 | 256 | 2600 | 335 | 100000 | 384 |

**Source: Krejcie & Morgan (1970)**

Note: "N" is Population Size

"S" is Sample Size.

### 3.5.1 Sample size for 2(two) campuses

In order to have a fair representation of students from both campuses the researcher used proportionate means to calculate the specific sample size from each campus based on Krejcie and Morgan table.

**The results are as shown in table 3.3 below.**

**Table 3.3: Proportionate Sample Size for both campuses**

| Campus | Population | Proportionate sample size | Percentage (%) in sample Size |
|---|---|---|---|
| **Nyankpala** | 1,792 | 373 / 10,118 x 1,792= 66 | **18** |
| **campus** | 8,326 | 373 / 10,118 x 8,326= 307 | **82** |
| **Total** | **10,118** | **373** | **100** |

**Source: Field survey, 2019**

In the case of the professional library staff, the researcher used the head of library electronic information resources who is a professional library staff for the study and therefore, sampling of the professional library staff was not required.

In summation, three hundred and seventy-three (**373)** was the sample size for students and the professional library staff when added amounted to a total sample size of three hundred and seventy –four **(374).**

### 3.6 Sampling Technique

The researcher employed multi-staged sampling technique to sample the respondents for the study. The population was stratified along campuses (thus Nynakpala campus and Dungu campus) followed by accidental sampling from each strum (campus) guided by proportional representation as shown in the table 3.3.

The researcher thus after using proportionate sampling method to identify the sample size used accidental or convenient sampling on both campuses for data collection from undergraduate students.

For the study, 66 Nyankpala campus undergraduate students were met accidentally at the Library and who were ready for the researcher to administer questionnaire. With regard to Tamale campus 307 undergraduate students who were willing was also given questionnaires right at the library to answer and return them to the researcher.

There are quite a number of sampling techniques that were used in social science research and these are broadly classified into probability sampling and non-probability sampling (Babbie et al., 2001; Frankfort-Nachmias and Nachmias, 1996; Welman, Kruger, and Mitchell, 2005).

In a probability sampling the probability of any member of the population to be selected and included in the sample can be determined (Welman, Kruger, and Mitchell, 2005). Examples of probability sampling techniques are simple random sampling, stratified random sampling, systematic sampling, and cluster sampling. In non-probability sampling, the probability for the selection of any member of the population for possible inclusion in the sample cannot be predicted or determined. Non-probability sampling techniques include quota sampling, purposive sampling and convenience sampling.

Budu Stephen (2015) (citing Aina, 2004) contends that accidental sampling depends on convenience in getting into contact with the sampled population. He therefore cited that it is the least expensive way of selecting a sample since it does not require the use of a sample frame. According to Sekaran (2003) convenience sampling connotes the gathering of data from members of a population who are readily available to give information. The convenient sampling method used in the present study is commonly utilised in studies of this nature and it follows previous research such as (Raman, 2011) and (Stephen Badu, 2014)

### 3.7 Data collection instrumentation

Questionnaires were the main data collection instrument used in gathering data for the study.

#### 3.7.1 Questionnaire

Questionnaires simply put are a set of questions administered to a defined number of persons for data gathering. According to Kumar (2005) questionnaires can be explained as a written list of questions for which answers from respondents are recorded. For this reason, he further states that questionnaires should be clear and easy for it to be understood by respondents. In the view of Kumekpor (2002) questionnaires have a special advantage over other research instruments.

Semi structured questionnaire was developed and administered to the sampled students. Therefore the questionnaire used contains both open and close ended questions. The structured questionnaires were closed ended by providing possible answers where respondents were asked to select an option by usually ticking. On the other hand unstructured questionnaires which were open ended in nature, allowing respondents to state possible answers usually by writing.

The questionnaire was categorized under eight sections (namely A, B, C, D, E, F, G and H) with thirty four (34) questions. The questions were categorized and developed taking into consideration the specific objectives of the study. Section A focused with the socio-demographic characteristics of respondents, section B dealt with knowledge of electronic resources, section C frequency of use of electronic information resources, section D took care of usefulness of electronic information resources, section E Level of satisfaction with current electronic information resources, section F presents Information seeking behaviour, section G challenges of seeking information, and finally section H challenges associated with the use of electronic information resources.

### 3.8 Mode of data collection

The study deployed survey questionnaire for data collection from respondents.

### 3.8.1 Questionnaire administration and collection

Survey questionnaires can be administered in many ways. For the purposes of this research the researcher deployed the self-administered questionnaires especially because the target population is mainly students and library staff. Self-administered questionnaire survey can be explained as the process is ongoing whereby the researcher gives out the questionnaires personally or with the help of assistants.

Permission was granted by the library authorities, for the researcher to administer the questionnaires personally at the library until the required sample size was achieved.

### 3.9 Method of data analysis and presentation of results

After receiving and checking completed questionnaire from respondents in order to ensure consistency, a coding manual was generated manually. The data was analysed using the Statistical Package for Social Sciences (SPSS). Thus, descriptive statistics such as frequency distribution, percentages, means, graphs, Pearson's correlation coefficients, p-values and other related statistics was computed and generated electronically.

### 3.10 Ethical consideration

According to Aina (2002), ethics are norms that are expected to be followed, and may also be referred to as principles of good behaviour. In line with Kripanont (2007), ethical considerations expected in social science research was adhered to. Kripanont (2007), refer to ethics as a code of conduct or expected societal norm of behaviour to be considered while conducting research. Given the above, Pilot and Hungler (1999) state that in social research the following ethical issues should be of great concern to the researcher:

Informed consent: the researcher must explain the nature and purpose of the research to the respondents before the actual research takes place. The respondents must agree to the terms and conditions and are willing to participate in the research process.

Right to privacy: the researcher has to keep the identity of the respondent anonymous. In most cases where the respondents are concerned that the exchange of information will affect them

in any way, they can refrain from the study or change their identifiable data. Therefore, participants are not obliged to undertake the study or provide their true identifiable details to the researcher. All names shall be withheld from any publication and if required they will be changed to pseudonyms to protect participants' identities.



# CHAPTER FOUR

## 4.0 RESULTS AND DISCUSSION

### Introduction

This chapter presents a critical and logical examination of data gathered from respondents. The data was gathered through the use of survey which involves both open and closed-ended questions grounded on the study objectives. Results of the analysis of the data is presented in tables and charts. The results are organized and presented under the following headings: (i) Knowledge with regards to awareness and use of library electronic resources; (ii) Usefulness and ease of use of electronic information resources; (iii) Extent of use of electronic information resources; Student academic information seeking-behaviour; (iv) Factors that determine and influence students' academic seeking-behaviour; (v) Electronic resources challenges associated with its usage; and lastly (vi) Promotional strategies used by university library management in marketing their library electronic information resources to students and academics.

### 4.2 Demographic characteristics of respondents

This section presents analysis of demographic characteristics of the respondents surveyed for the study.

#### 4.2.1 Gender of respondents

Gender is relevant to the study as earlier studies in this field have shown that it influences the patronage of electronic resources (Bentil, 2011). Due to this, the respondents were asked to indicate their gender. Table 4.1 indicates gender distribution of the 373 respondents surveyed.

**Table 4.1: Gender distribution of respondents**

| Gender | Frequency | Percentage |
|---|---|---|
| **Male** | 203 | 54.4 |
| **Female** | 170 | 45.6 |
| **Total** | **373** | **100.0** |

**Source: Field Survey, 2019**

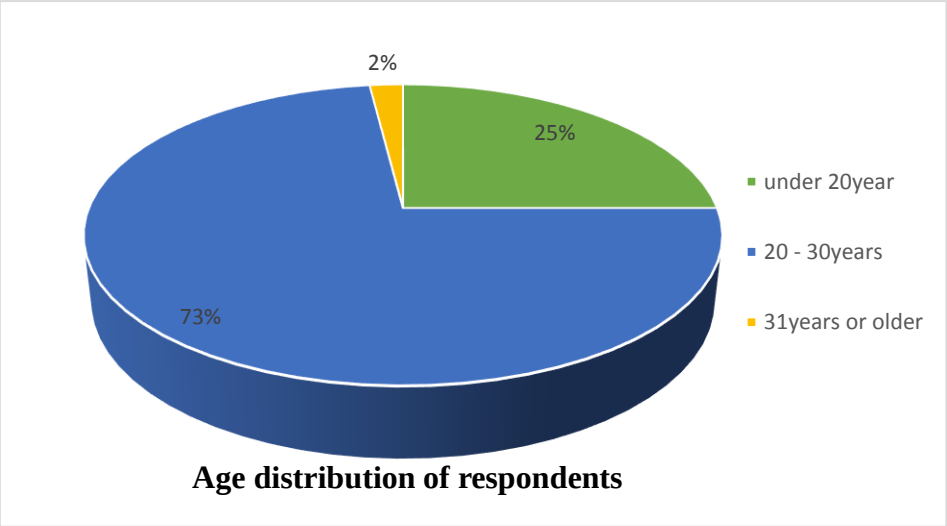
The findings show that a total of 373 students comprising 203 (54.4%) males and 170 (45.6%) females participated in the exercise. This means majority of the participants were males. Subsequently, the present trend of gender distribution is in consonance with current development as it has been established that less females get opportunity to enrol at the tertiary level than their male counterparts, especially in developing countries where females are limited to the kitchen Mulla (2011). It implies that present study is fair and not biased towards females. There have been a number of studies in the same direction. Notable among them is Amoo (2018) who undertook a study at University of Ghana (UG) with the respondents being postgraduate students with a sample size of 100. Out of the 100 respondents, 59 representing 59% were males, whiles 41 respondents representing 41% were females.

Similarly, other studies that have been undertaking by Mulla (2011); Nunoo (2012); Ani, Ngulube and Onyancha (2014); all established male supremacy with regards to gender distribution, and all these studies were carried out in tertiary institutions.

Contrariwise to the above, Okello-Obura and Magara (2008) (sited in Badu, 2015) in their studies on Electronic Information Resources (EIR) access and utilization discovered more female respondents than male. The results indicated 105(55.3%) female and 85(44.7%) males. The high percentage of male dominance could be due to the fact that more males were admitted than females to undertake tertiary education.

### 4.2.2 Age distribution

The ages of respondents are very important in undertaking research. Kumar and Grover (2007) for example outlined that the age of respondents influences the use of electronic information resources. Therefore, respondents were asked to specify their ages. The age distribution started from under 20years to 31years and above. Figure 4.1 indicates the age distribution of the respondents.




**Source: Field Survey, 2019**

**Figure 4.1: Pie chart showing age distribution of respondents.**

From figure 4.1, 20years constitute 93(25.0%). Majority (73%) of the respondents were within the age range of 20–30years. It however, not surprising because this age category is predominantly the age at which most pupils are expected to start their tertiary education. Also, they are referred to as the computer age, since they virtually spend most of their time exploring the internet for information. Lastly, those between the ages of 31years and above constituted 6(2.0%). They are the old generation and may not have enough exposure to computers (techno-stress), therefore, increasing their dislike to using the computer as source of information, which ultimately leads to their lower level of use of electronic information resources (Erdamar and Demirel, 2014). From the results presented, majority of the respondents were generally within the youthful age cohort of 20-30 years.

The implication here is that the University is dominated by young persons and this is positive signal for a brighter future. Besides, the youthful age group is considered to be very particular about technology and its associated services. Also, they learn relatively faster as compared to the older age group (Ebenezer, 2016).

The findings of this research are confirmed by Bentil's (2011) study which revealed that in both private and public universities postgraduate programmes are usually monopolised by the youth.



### 4.2.3 Academic levels of respondents

As part of the background information, academic levels of the respondents were also investigated. The educational level of respondents provides researchers with information regarding the number of respondents from the various levels that were involved.

It helps to provide general observations of students from various academic levels for the possible outcome of the research.

**Table 4.2: Academic levels of Students**

| Level of study | Frequency | Percent (%) |
|---|---|---|
| **Level 100** | 196 | 52.5 |
| **Level 200** | 64 | 17.2 |
| **Level 300** | 87 | 23.3 |
| **Level 400** | 23 | 6.2 |
| **Master/MPhil** | 3 | 0.8 |
| **Total** | **373** | **100** |

**Source: Field Survey, 2019**

Based on data from the table 4.2, level 100 student's recorded 196 respondents representing 52%, level 200, 64 students were interviewed representing 17.2%. Level 300 Students were 87 representing 23.3%. Level 400 been final year degree students recorded 23 respondents

representing 6.2%. Finally, master students recorded just 3 responses which is 0.8%. This is as a result of the fact that most master students do not reside on campus and as such do not really frequent on the library.

Nevertheless, Ani (2013) demonstrated that demographic attributes of respondents to a large extent do not impact on their use of the library electronic information resources. There is evidence in literature indicating that user levels of EIR greatly relies on the nature of programme student's offer. The nature of some programmes are such that student's would have to rely heavily on the EIR to acquire academic information to support their studies, whiles other programmes relative do not require that(Al-Shanbari and Meadows, 1995; Banwell et al., 2004; Elam, 2007; Hartley, 2007; Kaur and Verma, 2009; Park, 2010; and Tahir, Mahmood and Shafique, 2010). A survey by Banwell et al. (2004) showed that access and use of computer based information varied among and within colleges as indicated in the present study. What this means is that a given discipline will have some level of influence on the use of EIR depending on how technologically the field is endowed as explained by (Adams and Bonk, 1995) (cited in Badu, 2015).

Also Heterick (2002) found positive influence of discipline on the use of EIR. He further stated that humanities programmes make less use of EIR than the sciences and social sciences. It is however interesting to note that the humanities are now showing greater interest in the adoption and use of EIR as this view is acknowledged by Tahir Mahmood and Shafique (2010) the conclusion they arrived at during their scholarly work was that, gradually humanities intellectuals are exploiting digital resources as a way of fast-tracking their information exploring behaviour.

**4.3 knowledge about UDS library electronic information resources**

This section addresses the first objective of the study which is to determine student knowledge about University for Development Studies library electronic information resources.

### 4.3.1 Awareness of library electronic information resources

The awareness level of students were tested, as a question was pose to find out whether students were really aware of electronic information resources hosted by the University Library. They were required to choose 'Yes' or 'No' responses to indicate if they were or were not aware of the University's library electronic resources. Fig. 4.2 shows the summary of their responses.

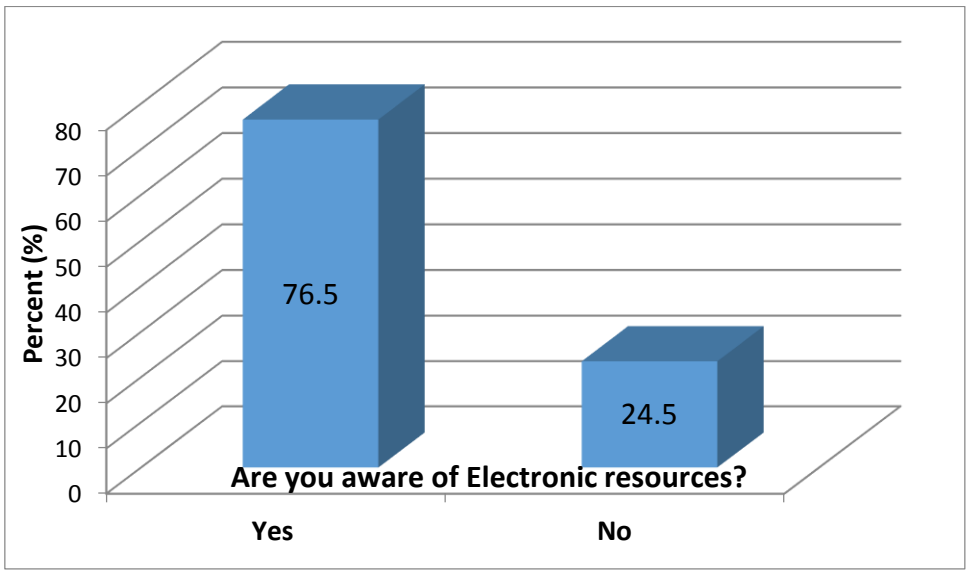



**Figure 4.2: Bar chart showing awareness of electronic information resources**

**Source: Field Survey, 2019**

Analysis as shown in the Figure 4.2, revealed that majority 76.5 % of the students indicated they were aware of the existence of the university's library electronic information resources with a little over one-quarter 24.5 % not being aware of the University's library electronic information resources. Although majority of the students indicated they were aware of the University's electronic information resources but with over one-quarter of the students surveyed not being aware of this valuable resource give a course for management to be concerned about. The university spent huge resources to procure and manage the library electronic resources, so to have such large number of students not being aware of the existence of these resources means it's underutilized.

Bentil (2011) revealed that out of 103 and 47 postgraduate students respectively sampled from University of Cape Coast (UCC) and Central University College (CUC), only 2 (1.9%) from CUC were not aware of EIR with 57.4% from UCC not being aware of EIR . This indicates a very high level of awareness among CUC and very low awareness among students of UCC.

Similarly, a research undertaking by Kwadzo (2015) title; awareness and usage of electronic databases by Geography and resources development information studies Graduate students in the University of Ghana disclosed that out of the total 32 responses that were given, majority 31 representing (96.9%) of the respondents were aware of electronic resources and only 1 was not aware. This is comparable to Acheampong (2016), whose findings came out that out of 540 respondents 494 constituting (91.0%) were aware of electronic resources whilst 46 (9.0%) were not aware. The findings of this study is in contrast with Bayugo and Agbeko (2007) who in their study of information seeking behaviour of health science faculty at the college of health sciences, University of Ghana, stated that academics were not aware of the two full-text journal databases (HINARI and PERI) retrieved from the library. In most cases, when users don't have adequate knowledge about the existence of information resources in libraries, they are disadvantaged to their importance. Libraries after acquiring information resources need to do more to get information to users. In other words, efficacy of the university library to a large extent depends on the accessibility and utilization of its information resources and services by users.

### 4.3.2 Awareness of various library electronic information resources

The respondents were subsequently tasked to indicate their awareness of the specific electronic information resources in the university library. As a means to find out the various electronic information resources respondents were aware of, they were given a list of options to select from and also asked to choose as many as applicably.

**Table 4.3: Awareness of various library electronic information resources**

| Options | Frequency | Percentage |
|---|---|---|
| **Online Databases** | 231 | 62.0 |
| **E-journals** | 102 | 27.3 |
| **OPAC(Online public access catalogue)** | 116 | 31.1 |
| **E-Books** | 165 | 44.2 |
| **CD-ROM** | 37 | 10.0 |

**Source: Field Survey, 2019**

Note: Respondents were allowed to select multiple answers

From table 4.3, it can be seen that 62.0% of respondents are aware of Online Databases, 27.3% are aware of E-journals, 31.1% are aware of OPAC. Also 44.2% are aware of E-Books, and lastly, 10.0% are aware of CD-ROM and 24.0% gave no response because of their earlier indication that they lacked awareness. With this outcome, indications are that the widely used electronic resources that clients are aware of are Online Databases, E-Books, OPAC, E-journals, and the least been CD-ROM.

The first objective of this study was to determine student knowledge about University for Development Studies library electronic information resources. The findings from the study indicated that majority of the students surveyed were aware of the electronic information resources. Notwithstanding, considerably number of them (over one – quarters) were not aware of electronic information resources and this give course for concerns. In another instance, reasons for the high respondent's rate given by students as a results of online databases usage are that it's popular and provide easy access to academic materials, besides, it's good and well-designed interface plays a significant role in this situation. It also covers all disciples (multi-disciplinary). Full-texts can easily be acquired, and with its wide range of materials on user's subject areas, it provides more specific information, it is more convenient and time-saving, and

it contains much current information. These students claimed it influences their usage of online databases.

However, the questionnaire answered by the Head of electronic information resources (EIR) disclosed that efforts are made in sending mails to lectures and students social media sites to help circulate information about electronic information resources.

The findings above are same with Ali (2005) (cited in Ebenezer, 2016) indicated in a study that evolved on the use of Electronic Information Services (EIS) among the users of Indian Institute of Technology (IIT) library in Delhi, India. The study showed that 95 percent of users indicated their awareness of Electronic Information Services provided by the library. Besides, Madhusudhan (2010) discovered that electronic information resources had become the most popular tools for research and academic activities. There was an increasing preference for the electronic resources to the detriment of the printed format (Borrego et al., 2007) and electronic information resources were being used compared with CD ROM databases (Swain and Panda, 2009), which confirmed that users were aware of the electronic information resources.

More to this, some of the media for disseminating information about electronic information resources that were discovered from the findings are in consonance with those that were mentioned in a study titled electronic resources: access and usage at Ashesi University College (Dadzie, 2005). Her findings revealed that about 85 percent of respondents used the internet to access information. The result on the other hand is in sharp disputes with that of Shamin (2004). He suggested that the library should give a greater deal of attention to the advertising of electronic resources such as CD ROMs, web resources, online databases and audio/video tapes. His findings came out that users had no idea of electronic information resources.

The Diffusion of Innovation Theory (DIT) by Rogers (2003) was adopted for this research basically because it agrees with the objective of investigating the awareness of electronic information resources by users. The main goal of DIT is to understand the adoption of innovation in terms of four elements including communication. Thus, the media through which

awareness is created about the innovation. Some media were discovered from the findings of this study as, information gathered from colleagues, fresh student's orientation, etc. DIT also states that an individual's technology adoption behaviour is determined by his or her perceptions regarding some factors of which include observability of the innovation. This means, to use an innovation, one has to observe it. Observation of an innovation leads to awareness of that innovation. Hence, awareness can be said to usher one into the use of an innovation (Ebenezer, 2016).

Horatia (2018) (cited Egberongbe, 2011), conducted a research on the use and impact of EIR at the University of Legos revealed that out of 112 Lecturers about 32 (representing 28.6%) were not aware of EIR. Again, when 70 research scholars were asked on the awareness of EIR, 15 (21.4%) out of the number answered 'No'. Similarly, Bentil (2011) assessed level of awareness of EIR among postgraduate students and lecturers of the Central University College (CUC) and University of Cape Coast (UCC). His study revealed that out of 103 and 47 postgraduate students sampled from UCC and CUC respectively, 2 (1.9%) from CUC were not aware of EIR. This gave a very high awareness rate as compared to that of Egberongbe (2011). However, results from CUC is in sharp contrast with the result from UCC indicating a very low awareness rate (42.6%) given that 57.4% of postgraduate students from CUC were not aware of EIR.

In a research carried out at Akrofi - Christaller Institute of Theology, Missions and Culture and Ghana Technology University College (GTUC), there was encouraging percentage in terms of student's awareness of journals. At Akrofi - Christaller Institute of Theology, Missions and Culture (ACI) 100% awareness level was realised whereas Ghana Technology University College (GTUC) gave 84.5% awareness with the remaining 15.5% (16 respondents out of 103) unaware of the availability of e-journals. The indications here are that there is poor Library orientation and user education on EIR at GTUC. The reason why ACI recorded 100% awareness is that there is regular and comprehensive Library Orientation programme for

students every semester. Again, it also implies that most postgraduate students depend largely on the traditional print based materials be it in the form of books, journals, lecture notes or newsletters (Badu, 2015).

### 4.3.3 Channel of awareness

According to Ali (2005) (cited in Ebenezer, 2016), awareness and usage of electronic resource is the degree of user knowledge of the availability of the service and the extent of use. Awareness of electronic information resources is having knowledge about the existence of electronic resources. The findings showed that majority of the respondents stated that the electronic information resources had been well promoted at University for Development Studies. The results are displayed in fig. 4.3.

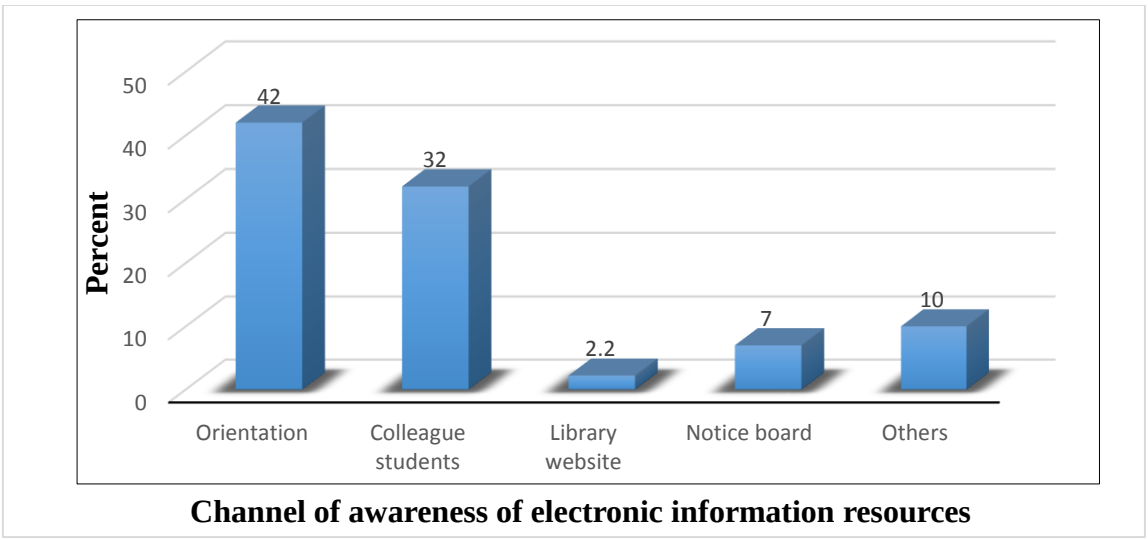



**Figure 4.3: Bar chart showing Channel of awareness of electronic information resources**

**Source: Field Survey, 2019.**

The researcher find out how students got to know of the library electronic information resources. Majority 42.0% got to know about it after attending an orientation organise by the library, 32.0% first heard it from their colleague students who had an opportunity to attend the orientation. 10.0% of students ticked 'others' indicating they first heard the information regarding the electronic resources from other locations. Also, 7.0% were made aware of the

library resources through notices displayed around. Library website recorded 2.2% indicating another source students got to know about the electronic information resources.

The respondents mentioned the medium of awareness of the electronic resources as, information they gathered from colleagues, fresh student's orientation, notices, and the website of the Library. This implies an effective mode of circulating information regarding an innovation (such as electronic information resources) among tertiary students by mouth, i.e. through colleagues, orientation, and other forms of oral information dissemination. It was thus not surprising that the level of awareness of electronic information resources was high among the respondents. In a similar study, Ming-der (2012) in his study of how graduate students perceive, use and manage electronic resources found out that the library website is the primary source for information dissemination.

This consistent with Amoo (2018) Master thesis study, which revealed that 27.0% of the respondents became aware of electronic information resources from their colleagues, 9.0% became aware of the resources from the Library Website, 48.0% became aware from orientation and 5.0% became aware of electronic resources from Notices, 10.0% of the respondents indicated that they became aware through other means, most especially from their lecturers whilst the remaining 3.0% gave no response because of their earlier response of not aware of the electronic information resources.



### 4.3.4 User Awareness of types of electronic information resources (EIR)

Accessibility and usage of library electronic information resources improve after they are properly promoted to users. In order to meet the emerging information requirements of their heterogeneous users, academic libraries are required to publicize the various forms of electronic information resources available. This enables users to have fair knowledge about the different electronic information resources in the library to seek information from. In that respect, students were requested to indicate the electronic information resource services they

mostly patronise in the library. Respondents were given the chance to provide more than one response. The responses are represented in Table 4.4

**Table 4.4: Most accessed electronic information resources in the library**

| Types of EIR | Frequency | Percent |
|---|---|---|
| **Emerald** | 47 | 12.6 |
| **Agora** | 47 | 12.6 |
| **Cab Direct** | 18 | 4.8 |
| **Science Direct** | 93 | 24.9 |
| **Jstor** | 26 | 7.0 |
| **Hinare** | 18 | 4.8 |
| **OARE** | 24 | 6.4 |
| **Taylor and Francis** | 26 | 7.0 |
| **Ebsco** | 6 | 1.6 |
| **Sage Online** | 51 | 13.7 |
| **Open thesis** | 56 | 15.0 |
| **Goali** | 16 | 4.3 |
| **IMF eLibrary** | 41 | 11.0 |
| **Oxford** | 136 | 36.5 |
| **Liebert Online** | 41 | 11.0 |
| **Wiley Publcation** | 54 | 14.5 |

**Source: Field Survey, 2019**

As seen from Table 4.4, Emerald and Agora recorded 47(12.6%) implying that it's the most accessed electronic information resources by student. Also, 18(4.8%) respondents said they use

Cab Direct. Another 93(24.9) indicated they use Science Direct in their academic searches. 26(7.0) respondents indicated they use Jstor, also 18(4.8) use Hinare in their searches. Those who responded to using OARE are 24(6.4%), whiles 26(7.0%) indicated they use Taylor and Francis. Ebsco Host recorded 6(1.6) usage, Sage online had a usage rate of 51(13.7%). Open thesis was 56(15.0%) representing the number of students who access it. Also, 16(4.3%) indicated to the researcher they use Goeli. 65(17.4%) of respondents confirmed they use IMF eLibrary, whiles 136(36.5%) show that they use Oxford in searching for their information. 41(11.0%) respondents confirmed that they use Liebert Online and lastly, 54(14.5%) claimed they use Wiley Publication during their academic searches. Emerald and Agora been the most used electronic resources by students does not really come as a surprise. Agora as an electronic information resource is tailored towards agriculture related subjects whiles Emerald is into various fields which include social sciences, economics, health etc. UDS Nyankpala campus offering mainly agriculture related courses students heavily relied on Agora to source for agriculture related information. On the other hand, UDS Tamale campus majority of the courses they run are health related making it the reason why most of the students patronise Emerald. This was the main reason why Agora and Emerald recorded higher response rate than the other electronic resources. In a related study by Ming-der (2012) the purpose for using electronic resources is unique to each and every user. Research scholars were asked about their reason of using electronic resources. Even though the reasons were many, the main reason was for finding relevant information in their area of specialization, implying that most of the electronic information resources are subject specific.

In recent times many researchers have examined the provision, access and use of online electronic library resources. A study by Deans and Durrant (2016) investigated the knowledge and use of electronic library resources in Jamaican community colleges and found that students were not well informed and lack the requisite knowledge to use online library resources. They therefore recommended that instructional programmes be implemented by library management

in an effort to impart knowledge and promote the use of library electronic information resources in these colleges.

It surfaced from the data analysis that students had positive attitudes towards the use of electronic information resources because of their regular access to it. The findings of the study is similar to what Swain and Panda (2009) reported as they observed that users attitude towards information was moving steadily from printed information resources to electronic resources. It was also realized from the study that most of the electronic databases the library subscribed to were not used to their maximum potential even though students were aware of them. Some respondents attributed this to restrictive access due to passwords and user names which were many to remember.

Also in the findings, students expressed that they accessed information from electronic resources more than print resources but most of them showed interest in accessing both information resources for their academic work. These findings affirm the findings of Shukla and Mishra (2011) (cited by Steven, 2015) in his thesis, which revealed that research intellectual's preferred e-resources to print resources. Also, due to the free access and unrestricted nature of google search, yahoo search engine and Google Scholar most students regularly relied on them much more than the library's database. In another regard, users often relied on Google Scholar frequently due to it's easy to learn access and it's easy to navigate nature as compared to some electronic information resources (Cothran, 2011). Again, students perceive that Google search and other search engines contain all their information requirement and research answers, without considering the fact that those information sources do not at all times provide relevant, reliable and authenticated information resources. In spite of this Libraries of university's are doing everything possible to subscribe to electronic databases together with journals to enable users get or access reliable and unlimited up-to-date access to current and archival information (Steven, 2015).

Kwadzo (2015), disagreed with the above study. The findings of his study on awareness and usage of electronic databases by geography and resource development information studies graduate students in the university of Ghana, showed that most of these students have not been exposed to the vast array of their subject databases and are thus limited to only a few.

Baro (2011) also refutes in his study on the awareness of several online information resources showed that majority of the undergraduate students in the College of Health Sciences in Delta State University are not aware of the existence of the following online information resources: HINARI, Medline, CINAHL databases, NUC virtual library as sources of information to retrieve materials related to medical literature and therefore are not utilizing them.

### 4.3.5 Promotional strategies used in marketing library electronic information resources to students and academics

This presents results and discussions on promotional strategies used by UDS library in marketing the library's electronic information resources which goes a long way to create students and faculty member's awareness hence promotes access and usage which any academic library desires.

#### 4.3.5.1 Publicity of library electronic information resources services

The publicity of library electronic information resources has become a necessity to most academic libraries. This helps to showcase library resources and services to a wide range of users. Publicity serves as a driving force to increase accessibility to information resources by users. Libraries were now adopting technological trends to create publicity for their resources. In the light of this, relentless promotional and marketing efforts are critical by libraries to ensure maximum and efficient use of electronic information resources by users (Atuase, (2016). The expectations of libraries are achieved when information resources are fully utilized by users in this regard, the opinion of respondents were sought to find out if the electronic information resources of the library are well publicized. Table 4.5 presents responses from students about publicity of library electronic information resources.

**Table 4.5 Publicity of library electronic information resources.**

| Response | Frequency | percent |
|---|---|---|
| **Yes** | 199 | 53.4 |
| **No** | 171 | 45.5 |
| **Non-Response** | 3 | 0.8 |
| **Total** | **373** | **100** |

**Source: Field Survey, 2019**

Table 4.5 contains answers from students which indicate that 199(53.4%) respondents agreed that electronic information resources in the library were well publicized. A total of 171(45.5%) respondents were of the view that EIR were not well publicized while 3(0.8%) of them were indifferent as to whether the electronic resources were well publicized or not. Those who responded no to the question suggested that, more publicity, more education as well as more awareness programmes should be created for electronic information resources services. It is apparent from the responses that UDS have done well with regards to publicizing electronic information resource services of the Library though there is still much to be done.

In a related research by Amoo (2018), the findings were not consistent with the above as 34.0% of the respondents answered 'Yes', specifying that electronic resources had enough publicity, whilst 66.0% of the respondents answered 'No', indicating electronic resources have not been well publicized to students. In view of this, majority of the respondents (66.0%) answered no implying there was no much publicity as far as electronic information resources are concerned. Ingutia-Oyieke and Dick (2010) also in a research; a comparative analysis of the use of electronic resources by undergraduate students at two Kenyan universities. They indicated that in the usage of electronic information resources there were personal barriers restricting users. Respondents were always stranded as they do not know what kind of resources existed making them surprise when assisted by librarians in finding information relevant to their studies. This

shows that the electronic information resources have not been publicised to students really well hence their difficulty in accessing them.

#### 4.3.5.2 Promotional strategies used in marketing the library's electronic information resources

In view of the above, the manageress of the library electronic information resources was asked to indicate which of the strategies the university library relies upon to market library electronic information resources. First of all, the head of the library electronic information resources indicated that they heavily relied on e-mails. Hence, they send e-mails to students and faculty who were registered users of the library, and this has helped in marketing the resources so well. In effect, faculty members mostly helped in disseminating the information to student's when they engage them during their lecture sessions. Students on the other hand informed their colleagues who are not registered or have no idea about the electronic information resources and all these go a long way to market the electronic resources. Another marketing tool employed by the library was Branding (A specific effort to identify an electronic resource as belonging to a library). This mostly done by branding some parts of the tables and book shelves in the reading room and serials room where students mostly sit to access the collections of the library. The library as indicated by the manageress of the electronic information resources also engaged in advertising as a way of marketing the library resources. 'Pull-up's' have been designed to advertise the library electronic information resources. These 'pull-up's' are placed at vintage places for users to easily see and appreciate. Posters were also used to promote the library electronic information resources to a larger extend, as they are placed at locations where students could easily site them. Another effective strategy used by the library as indicated by the head of the electronic information resources was orientation of fresh students. When the university admits fresh students, the library arranges for a period when orientation sessions are organise for fresh students at the library block, and during this period users are educated on the services rendered by the library and special emphasis placed on the electronic resources. Lastly,

the head of the library resources also added that, another effective method used in marketing the university library electronic information resources is by word of mouth. All library staff try as much as they can to inform or alert users about the availability of the electronic information resources hosted by the university library. She indicated that, the library staff on most occasions try to alley the fear most students or users have with regards to the usage of library electronic information resources.

Budu (2015), also maintained that, academic library been the heartbeat of the university has long been symbolic of an academic truth: that knowledge manifest best when developed through a combined conversation among scholars. Further to this, most college and university libraries practiced aggressive marketing efforts to create awareness on campus about the collections and services (Elisha, 2010) (citing Campbell and Wesley, 2006). Apparently thirty years back, the notion of marketing was introduced into the domain of library and information services as thinking and familiarising information products and services in marketing term (Elisha, 2010). The success of a library depends on the information that is channelled out to users regarding its services, and further goes to persuade them to utilise it (Elisha, 2010).

Elisha (2010) was consistent with the findings of this research as he indicated orientations offered to new students provided an ideal opportunity to be more innovative and proactive in creating first impressions of library resources and services. When librarians become involved with orientation programmes, positive interactions ignites before students even start their first semester lecturers. Becoming acquainted with university resources such as the library goes to help fine-tune student university life, and the earlier students learn about the library, the sooner they can begin to use it to improve their research skills (Elisha, 2010) (citing Rhoades and Arianne, 2008). In this regard, users are thought how to use the resources in terms of logging in, searching and retrieval of information. The library claims they actively engaged in marketing and advertising of information products and services to the information audience. Elisha (2010), pointed out that, the head of the electronic information resources further

indicated they help to create awareness among the user population leading to improved use of information products and services in the libraries. But this was not evident in the finding of this research as most respondents indicated they were not aware of the resources and lack the skills necessary to access and retrieve information.

Mohammed (2019), in his study found that a high percentage that used electronic/digital techniques such as library websites and social media were found with high percentage being the most reliable technique for promotion activities in libraries. Similarly, Garoufallou et al. (2013) and Khan and Bhatti (2012) emphasized that the most effective promotion techniques are the library websites and social media which recorded a high percentage of digital media techniques. Library websites are digital websites that represents the library and its access portal services and products and acts as values of the library. It gives out an easy to follow guidelines to the library, keeps user questions, permit patrons to get quick access from links which is accessible and caters for all category of users (Fang, 2007). Yi (2016) also found social media as an effective technique where information can easily be transferred, and states that the era where libraries were seen as sole places where information was sourced has passed and stressed the need for libraries to be innovative and interactive with their users and create a condition where users can come together to seek and share information.



The study was also consistent with the findings of Adegoke (2015) who reported that library orientation was the main technique used by Abdullahi Fodiyo Library in Sokoto, Nigeria in creating its students' awareness to their services. Similarly, Garoufallou et al. (2013) found that the major marketing technique used by libraries in Greece was the library orientation.

#### 4.3.5.3 Challenges faced by the library in marketing electronic information resources

This aspect discusses the challenges encountered in marketing information products and services by the university library to the university community.

The head of the library electronic information resources indicated that in marketing the electronic information resources the challenges faced were enormous, these included lack of

funds, lack of marketing policy, inadequate staff, inadequate computers, lack of skilled staff with marketing techniques and lack of time. She indication the challenges were seriously hindering the progress of the library with regards to marketing information products and services. She added that the challenges were seriously given attention by the university management since when addressed would go a long way to justify the huge financial investment the university expense on library electronic information resources. The above accession by the head of the resources further goes to confirm the reason why most users were not aware of the resources since much was not done to market the library electronic information resources. Lamptey (2016) in a similar research postulated that the pressing challenges identified by the library with regards to marketing of library services comprised inadequate facilities such as computers, lack of funds, lack of marketing techniques and skills by staff, and lack of marketing policies, inadequate library staff, and lack of time.



### 4.3.6 Access to library electronic information resources

Respondents were asked if they have access to electronic information resources of the university library whenever they wanted, and if indeed marketing and publicity of the resources by the library was anything to go by. They were asked to give a simple 'Yes' or 'No' response.

**Table 4.6: Access to library electronic information resources**

| Options | Frequency | Percent |
|---|---|---|
| **Yes** | 153 | 41.0 |
| **No** | 211 | 56.6 |
| **No Response** | 9 | 2.4 |
| **Total** | **373** | **100** |

**Source: Field data, 2019**

From table 4.6, results indicated that majority of the respondents' 56.6% did not have access to the electronic resource whenever they needed it. Those who had access to the resources when

they needed it were a little above forty percent 41.0%. This implies that majority of the students had no access to the resources defeating the essence to which the resources were procured. Where the response was not favourable on the access of electronic resources, some concerns were raised. Most students stated they do not have access to electronic resources mainly because of unstable network connection. Some also indicated computers in the library were inadequate while few people stated power cuts as a main reason for not having access to electronic information resources whenever they wanted. This contrarily to what the information given by the head of the electronic resources postulated. Head of the electronic information resource indicated that much has been done to make usage and access friendly. Some of the steps the library took to enhance usage and access was increase in internet bandwidth to improve stability in internet connectivity, wireless connections has also been beef-up to cover almost all parts of the library block, so that users don't necessary have to enter the reader service(library) in other to access the resources. Further, the provision of off campus access was another strategy used by the library to encourage usage. The findings of the study are supported by Amankwah (2014) that majority of the respondents 80.0% access electronic resources both on and off campus, indicating that respondents generally rate electronic resources on campus as good. In another study conducted by Diana (2016) also claim that postgraduate students accessed electronic resources from more than one place, but majority 55.0% respondents confirmed that they accessed electronic resources from the university Library. This indicates that the library remains an important or ideal place where students access electronic information resources to inure benefits towards a successful academic life.



### 4.4 Usefulness of UDS library electronic information resources to addressing student's information needs

This section attempts to answer specific objective two of the study by finding out the usefulness of UDS library electronic information resources in addressing information needs of students.

As noted from literature, nowadays, electronic information resources are becoming an efficient and reliable medium researchers rely upon in accessing information for academic purpose (Madhusudhan, 2010).

### 4.4.1 Significance of library electronic information resources on academics

Presently library electronic information resources have become the largest and fastest growing areas of digital collections for most of our libraries and it has many benefits (Madhusudhan, 2010). In line with this, respondents were asked to indicate whether the use of EIR had significance on their learning abilities. Their responses are shown in Table 4.6.

**Table 4.6: Responses on significance of EIR**

| Responses | Frequency | Percent |
|---|---|---|
| **Yes** | 314 | 84.2% |
| **No** | 31 | 8.3% |
| **No response** | 28 | 7.5% |

**Source: Field Survey, 2019**

As indicated on Table 4.6, 314(84.2%) of the respondents indicated that the use of electronic information resources had significance impact on their learning abilities whiles 31(8.3%) said the use of EIR had no significance on their learning abilities. However, 28(7.5%) of the respondents provided no answers to the question because they had already stated their lack of awareness of the electronic information resources at the Library. The data analysed above therefore indicates that most of the respondents, the use of the library electronic information resources was significant or had impact on their academic dispensation.

Research conducted by Sharma (2009) shows the use of electronic information resources is very common among the teachers and research scholars of Guru Gobind Singh Indraprastha University and majority of the teachers and research scholar are dependent on electronic information resources to get the desired and relevant information. Zha Li and Yan (2012) also pointed out in a study that usefulness is considered to be an important dimension for the choice

of different kinds of library resources. Their findings show that 67.99% of respondents agree that electronic information resources are useful to them as against 15.38% thought otherwise. The outcome of this study substantiate the studies carried out by (Sharma and Zha Li, and Yan, 2010) cited in Amankwah (2014) indicating that majority of the respondents showed that electronic resources are very useful and much important whilst few of the respondents have a different perception about it.

Judging from the above, significant or impact of electronic information resources on academic is enormous. Data collected indicates, respondents improved their academic capabilities much better than before after relying on the academic data bases provided by the university library.

### 4.4.2 Level of computer skills and use of library electronic information resources

Ansari and Zuberi (2010) posit that there is a direct relationship between computer literacy and use of electronic resources. This part therefore analysed respondent's computer literacy skills and how that affects their usage of electronic resources. To utilize the growing range of electronic resources, one needs to acquire and practice the skills necessary to exploit them (Bentil, 2011). Information Technology competencies, embodied in the broader term Information/Computer Literacy refer to individuals capabilities of using computers, software applications, databases, and other technologies to achieve a variety of goals (Association of College and Research Libraries [ACRL]), 2005. For this reason, respondents were asked to indicate whether they were computer literates or not. Their responses are shown in fig 4.4

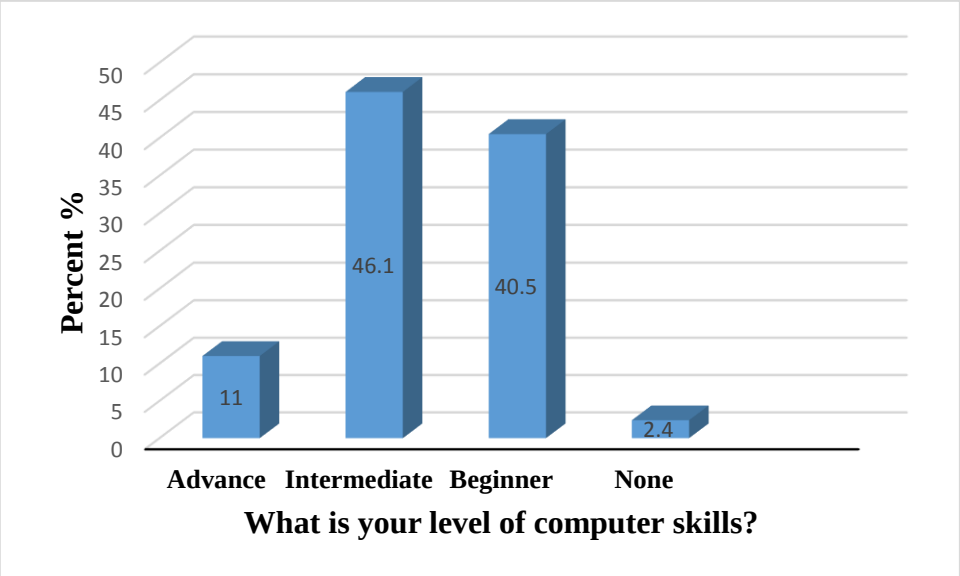



**Figure 4.4: Bar chart showing computer literacy of respondents**

**Source: Field Survey, 2019**

As shown in Figure 4.3, the respondents indicated as follows: majority 172(46.1%) indicated that their level of knowledge in computing were intermediate, it was closely followed by beginners with 151(40.5%) indicating they were novices in computing, 41(11.0%) respondents indicated they have advance knowledge in computing, and lastly 9(2.4%) could not tell whether they were Intermediate, Beginners or Advance in computer knowledge. This indicates that they have no idea with regards to computer let alone electronic information resources. Hardly can any individual make use of electronic information resources without the requisite skills needed to access them (Bentil, 2011). The finding is supported by Bentil (2011) who undertook a study at UCC and discovered that all respondents from who were proficient (25.5%) and highly proficient (15.2%) in computer searching skills used the electronic resources of the school. Only 1.4% who were quite proficient and another 1.4% who were moderately proficient did not use the electronic resources of the library. The above reasons why computer literacy is necessary for the use of electronic information resources were further confirmed by the handlers of the library electronic information resources. Being a computer literate makes an individual enjoy using electronic information resources. However, the minority hinted that the

use of electronic information resources is a routine process and can be learnt without necessarily having knowledge about ICT (Bentil, 2011).

Ebenezer (2016) in a related study indicated majority of the respondents agreed that computer literacy was necessary to maximize the use of electronic information resources. Some of the reasons included: It would be difficult and time-wasting for a non-computer literate person to use electronic information resources mainly because electronic information resources are sometimes complicated. One cannot use for example, search engines efficiently if he or she had no computer literacy skills. In addition, electronic information resources are based on information technology architectures, and it takes a computer literate person to understand IT architectures.

Ansari and Zuberi (2010) (cited in Akwesi, 2016) also revealed that library electronic information resources were effectively utilised in universities and that there is a direct relationship between computer literacy and use of library electronic information resources. Current challenges universities are grappling with is to ensure that their students attain a minimum level of computer competency when using new and constantly changing information technology. Because of the increasing electronic collections of university libraries, student computer competency is an important factor militating against student capability to use the collections successfully (Ebenezer, 2016). Computer literacy is indeed a necessity for a maximum use of library electronic information resources. It will be impossible for students to make good use of electronic resources without the requisite skills needed to access them (Bentil, 2011). In a sharp contrast Budu (2015) (citing Ozoemelen, 2009) in a study on use of electronic resources by postgraduate students of the Department of Library and Information Science, Delta State University Abraka, indicated low level of skilfulness in the use of ICT among user's. Lack of search skills was seen to be a major hindrance to the respondent's use of electronic resources. In a related study, Bashorun et al. (2011) found that there was no ICT

use skill among the respondents at the University of Ilorin, Nigeria and this was a major barrier to the use of electronic information resources.

### 4.4.3 Comfortable using library electronic information resources

Successively, respondents were asked if they were comfortable using electronic information resources of the library. They were asked to give a simple 'Yes' or 'No' answer. Fig. 4.5 shows the responses.

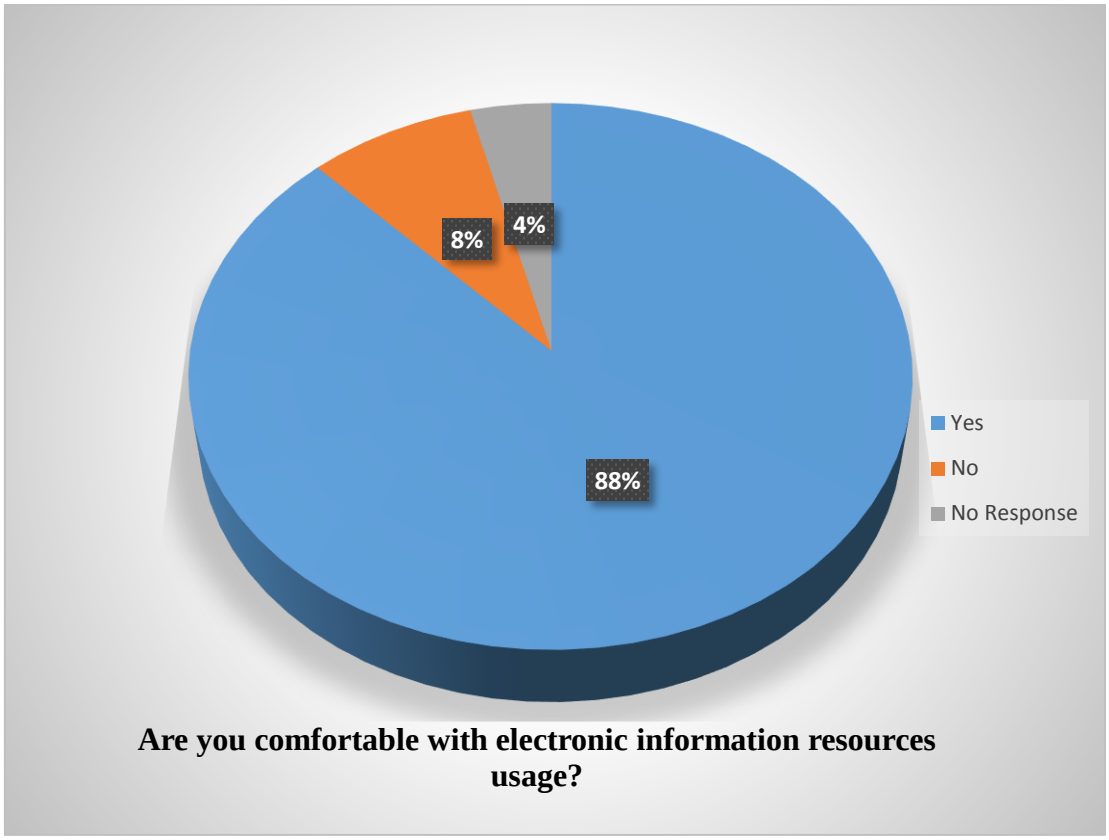



**Figure 4.5: Pie chart showing comfort ability in using electronic information resources**

**Source: Field Survey, 2019**

Figure 4.4 shows that majority 327(87.7%) of respondents answered 'Yes' whilst 32(8.31%) of respondents answered 'No'. The majority of respondents 87.7% who answered 'Yes' indicates that most of the respondents are comfortable using the electronic resources available in the library. This some respondents explained was as a result of the orientations they went through when they first came to the library. Other students indicated it was as a result of their

earlier knowledge of computing during formative years has helped them in this regard. This consistent with Amoo (2018) in a research on the use of electronic resources by graduate students of the university of Ghana revealed majority of the respondents are comfortable using electronic resources as majority 86.0% of respondents indicated 'Yes' and only few 14.0% indicated 'No', implying that majority of students who answered 'Yes' are very much comfortable using the electronic information resources available in the library. Ming-der and Shih-Chuan (2012) contradicts the findings of this study as they researched into how graduate students perceive, use and manage electronic resources. Majority of respondents indicated they faced some difficulties when using electronic information resources, hence were not comfortable accessing the resources which affected their academic activities immensely.



### 4.4.4 Electronic information resources respondents find easy to use

To help determine the rate at which electronic information resources are accessed and used indicators have to be set to measure how the resources are used by students. In an effort to search for information from different databases, users always have preferences when it comes to searching for data to satisfy their information needs. There are several factors that results in student's preferences such as differences in programmes, restrictive nature and student's interest in electronic information resources all influences users perceptions and preferences. When a system is easy to use, it encourages users to continue to use it. Respondents were therefore asked to indicate the electronic resources that they find easy to use. Table 4.7 depicts the responses.

**Table 4.7: Electronic information resources respondents find easy to use**

| Electronic Resources | Frequency | Percent |
|---|---|---|
| **OPAC** | 123 | 45.9 |
| **E-Journal** | 268 | 68.1 |
| **E-Book** | 16 | 2.3 |
| **CD-ROM** | 24 | 6.4 |
| **No Response** | 34 | 7.4 |

**Source: Field Survey, 2019**

Note: Respondents were allowed multiple answers

It revealed that 123(45.9%) find OPAC easy to use, majority of respondents 268(81.0%) find E-Journals easy to use. 24(6.4%) find CD-ROM easy to use, 16(2.3%) said they find it easy to use E-books and 34(7.4%) did not respond to the question because they are not aware of the Electronic Resources provided by the university library. This suggests that intensive education would have to be carried out to help educate students as to how to access the electronic information resources.

In a related research conducted by Kwesi (2016), it revealed that 74.8% use Emerald database, 58.3% use J-Stor database, 51.3% use the Wiley databases, 40.9% use EBSCOHost, 23.5% use annual reviews, 21.7% use Beech tree database, 15.7% use Taylor and Francis database, 13% use Policy press, 12.2% use Mary Ann Liebert and National Academic Press, and 9.6% use the Directory database for academic work, this gave a clear indication that e-resources are easily used by students. Amoo (2018) indicated most of the respondents are comfortable using electronic resources as 86.0% indicated yes and only 14.0% indicated 'No'.

There was a sharp contrast by He et al. (2012) (cited in Kwesi, 2016) postulated that respondents regarded online academic search engines such as Google and Cite Seers as more important resources as compared to the university subscribed databases such as EBSCO, Emerald, and JSTOR. Indications are that users perceive Google search, Google scholar, Bing and yahoo search engines as free to access and less restrictive than the library's databases. In another regard, Cothran (2011) also concluded that users accessed Google Scholar almost all

the time and the simple fact that they are easy to learn, easily accessible and simple when navigating around them makes them a preferred choose over electronic information resources. Kwesi (2016) in a related research indicated that majority of the respondents use e-books (77.4%), e-journals (60.0%), CD-ROMs (45.2%), e-newspapers (40.9%), e-magazines (33.0%) and e-images (17.4%). This implies that there is higher acceptance of the library e-books. This consistent with Bhatia (2011) revealed that majority of the respondents regarded electronic book (25.84%) as the most used electronic source. Markwei (2001) (cited in Kwesi, 2016) maintained that even though most students are aware of electronic information resources they are arguably under-utilized.



### 4.4.5 Skilfulness in using Library electronic information resources

According to Bentil (2011), to utilize the growing range of electronic resources, one needs to possess the necessary knowledge and the skills necessary to practice and exploit them. Therefore, respondents were asked how skilful they are in using electronic resources by giving a 'Yes' or 'No' answer. Fig 4.6 shows the responses.

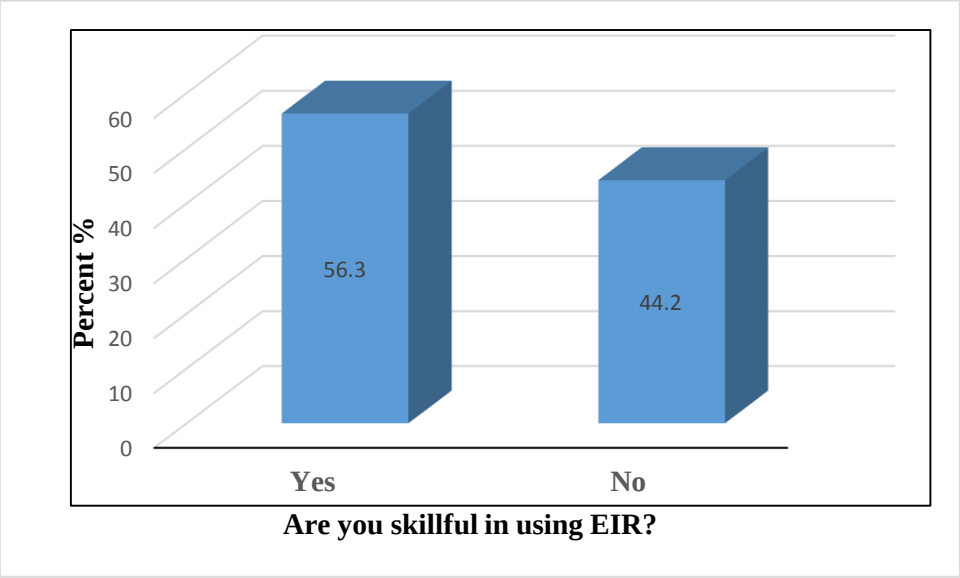



**Figure 4.6: Bar chart showing Skilled in using electronic information resources**

**Source: Field Survey, 2019**

From the findings, it is revealed that 56.3% of the respondents are skilful in using electronic resources, 44.2% are not skilful in using electronic resources. 3.3% of students gave no response to the question since they are not aware of the electronic resources in the library. Atuase (2016) stated that the skill to use the computer to search for information greatly dependant on user knowledge of the search system. Besides, the ability to locate, identify, and retrieve and manage information effectively can be transferable skill useful for lifelong learning for human endeavours. This therefore essential for users to obtain computer skills which are aspect of information literacy skills to enable them access and make effective use of electronic information from various sources for effective academic work. From the information 55.83 students indicated they are well skilled in using electronic resources, this implies that majority of the student populace are very skilled in using the resources which is very important as it goes to say that the intended purpose of the resources are been achieved.

Again, Ebenezer (2016) (citing Tella and Mutula, 2008) revealed that postgraduate students who are less skilled in computer normally have difficulty in accessing electronic information resources, hence their effective and efficient search for information in conducting academic research is greatly impeded upon. Similar research conducted by Amoo (2018) out of a sample size of 100 students, 55.0% (55) respondents revealed they were skilled in using electronic information resources, while 42.0% (42) indicated they were not skilled in using electronic information resources and only 3.0% (3) gave no response. This is an indication that majority of the respondents are skilled in using the university's library electronic information resources. Ebenezer (2016) reiterated in his research that students were more luckily to struggle in using electronic information resources if they had no requisite skills. He revealed that 83% of the respondents agreed computer literacy was required to achieve greater success in the use of electronic information resources, however, 17% students felt it wasn't necessary, further affirming the fact that computer literacy is an ingredient in maximizing the use of library electronic information resources.

The head of the library electronic information resources was asked to state her opinion on whether computer literacy was necessary to make maximum use of electronic information resources. She indicated; "yes, I think so". Her motives were that; it would be very difficult and time wasting for a non-computer literate person to use library electronic information resources, implying electronic resources are sometimes complicated. Also, electronic resources are based on Information Technology and it takes a computer literate individual to understand these IT systems. This her assertion goes to buttress the responses of students.

#### 4.4.5.1 Skill in formulating search queries

Equally respondents were asked to indicate if they are skilled or not in formulating search queries. Table 4.8 shows results.

**Table 4.8: Search queries skill**

| Option | Frequency | Percent |
|---|---|---|
| **Yes** | 206 | 55.2 |
| **No** | 151 | 40.5 |
| **No Response** | 16 | 4.3 |
| **Total** | **373** | **100** |

**Source: Field Survey, 2019**

The results show that 206(55.2%) students indicated that they were skilled in formulating search queries, 151(40.5%) stated they were not skilled in formulating search queries, 16(4.3%) gave no response since they indicated they had no knowledge of the electronic information resources availability in the university library.

With regards to skilfulness in using electronic resources, Amoo (2016) in a similar research, 55.0% indicated 'Yes' and 42.0% indicated 'No', however only 3.0% indicated that they were skilled in formulating search queries. Budu (2015) agrees with the above study were respondents 47.0% indicated 'No' and 21.0% stated 'Yes' that they were skilled in using the

electronic resources to formulate search queries, this shows a low level of skilfulness and that training programs must be organized to provide students with the needed skill to use library electronic information resources effectively.

This consistent with Ozoemelem (2009) revealed that 32(41.03%) of the respondents are skilled in formulating search queries and 46 (58.97%) are not. A study at the University of Ilorin found that respondents had no ICT skills to use electronic resources and this affected the effective use of electronic resources (Bashorun et al., 2011).

Amankwah (2014) in a similar research, users were tasked to show how they performed their search with electronic resources. 25(31.6%) indicated they did it themselves, 6(7.6%) showed they were assisted by a library officer and 43(54.4%) revealed being assisted by a colleague/friend. Consequently majority of the respondents were supported by their friends to search the electronic resources.



### 4.4.6 Ease in getting the required Information

In trying to find out whether users get the maximum information they require from the resources, students were asked if it was easy to get required information using the electronic information resources. Amoo (2018) (citing Gross and Latham, 2009) postulated that, computer literacy skill is a key factor to an effective and efficient usage of electronic resources, hence students were requested to give 'Yes' or 'No' response. Table 4.9 show the results.

**Table 4.9: Ease in getting required information**

| options | Frequency | Percent |
|---|---|---|
| **Yes** | 243 | 65.0 |
| **No** | 114 | 31.0 |
| **No Response** | 16 | 4.0 |
| **Total** | **373** | **100** |

**Source: Field Survey, 2019**

The results revealed that 243(65.0%) of the respondents find it relatively easy to get the required information, 114(31.0%) subsequently do not find it easy to get the information they need each time they access the resources. Lastly, 16(4.0%) respondents gave no response to the question posed by the researcher.

This consistent with Amoo (2018) in a similar study as 55.0% answered 'Yes' meaning they find it relatively easy to get information, 42.0% answered 'No' indicating getting information does not in any way come easy for them. And lastly, 3.0% gave no response to the question since they didn't have any idea about the electronic resources. Ming-der and Shih-Chuan (2012) also agrees with the above finding when they researched into how graduate students perceive, use and manage electronic resources. The purpose of the study was to investigate how graduate students of the National Taiwan University perceived electronic resources, their search behaviour, and usage patterns. Majority of respondents reported ease of use of library electronic information resources.

### 4.5 Extend of use of library electronic information resources

This section presents information on extend of use of electronic resources by students of UDS in seeking academic information. As such, this section seeks to address specific objective three.

#### 4.5.1 Duration of use of library electronic information resources

As a key component of the objectives, it was imperative to determine the duration student use the electronic information resources of the library. In that regard, respondents were tasked to answer how long they have been using the electronic information resources. Fig. 4.7 displays the responses.

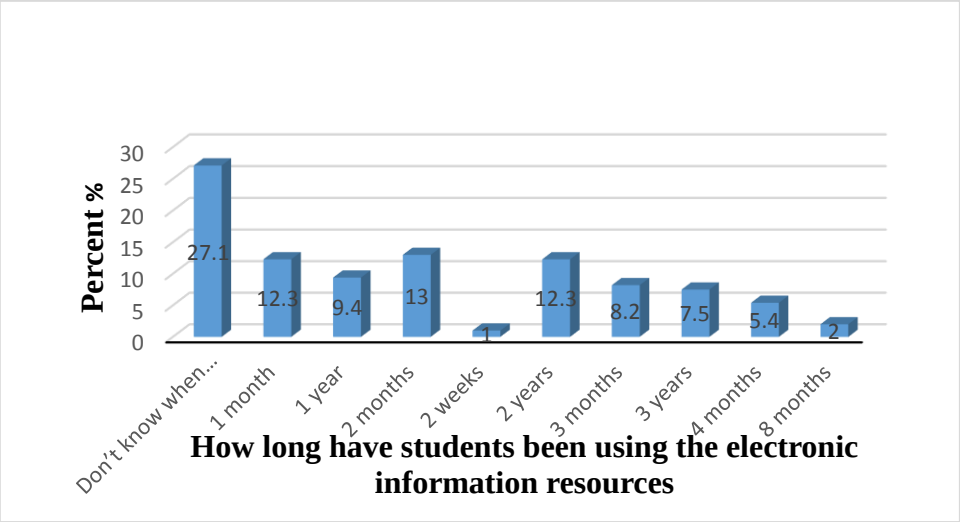



**Figure 4.7: Bar chart showing Duration of usage of electronic information resources**

**Source: Field Survey, 2019**

The results revealed that the electronic resources 8.2% of the respondents have been using electronic information resources for 3 years. 12.3% have been using it for 2years, whiles 9.4% have been using it for 1 year. 2.0% indicated they have been using it for 8months, also, 5.4% admitted they have been using the resources for 4months, and 8.2% have been using EIR for 3months, most of the students indicated they had come into contact with the library electronic information resources close to 2months ago. Also, 8.2% made it known to the researcher that they had only started using the resources 1month ago. 1.0% of students indicated they started using it 2weeks ago, and lastly, 27.1% could not tell exactly when they started using the library electronic information resources. Implying, majority of the users of the library electronic information resources could not remember exactly when they started accessing the resources. This contrarily to Ebenezer (2016) research conducted on Students' use of electronic resources in university of Professional Studies, Accra. Majority of the respondents 33.3% indicated that they had used the electronic resources section of the library for less than a year. But 22.5% did not provide any answers to this question because they had already stated in earlier responses that they were not aware of the presence of electronic resources at UPSA Library. Furthermore,

22.2% of the respondents indicated that they had used the electronic information resources section of the library for 2years, 13.1% for 1year, 8.0% 3years and 0.9% of the respondents stated that they had used the library electronic information resources section for 4years or above.

In a related research, Amoo (2018), also revealed that 23.0% respondents have been using electronic information resources less than a year, 14.0% have been using the resources for 1 year. Majority 41.0% have been using it 2 year, 11.0% said they have been using it for 3 years and 8.0% respondents have been using it for over 4 year and more. The findings came out that majority of the students have been relying on library electronic information resources for more than a year.



### 4.5.2 Often use of library electronic information resources

The most significant way to assess the usefulness of library electronic information resources is to find out how often or seldom students of the University for Development Studies use the electronic information resources in the course of their academic activities. Base on the above, students were tasked to indicate how regular they use library electronic information resources. Fig. 4.8 shows the responses.

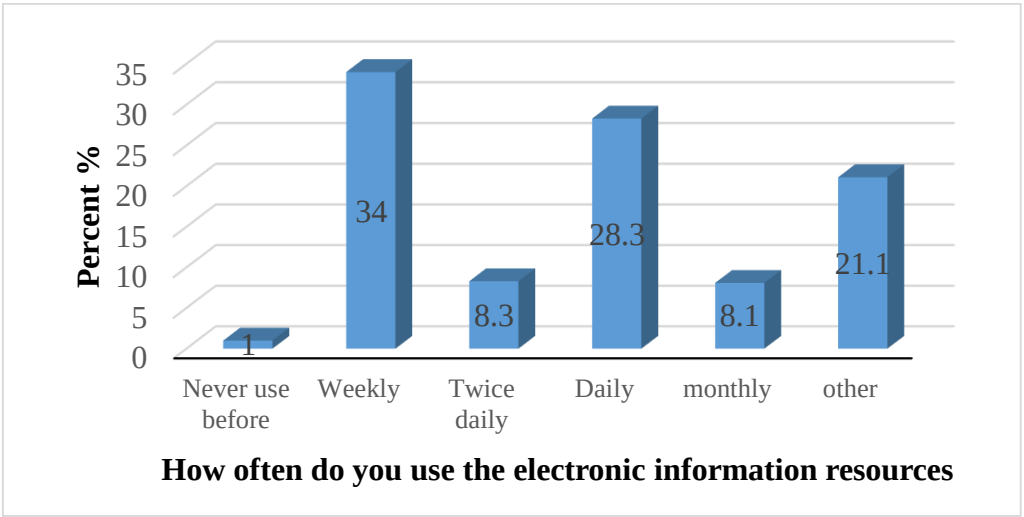



**Figure 4.8: Bar chart showing often use of electronic information resources**

**Source: Field Survey, 2019**

The findings from the study revealed that 28.3% of the respondent's access the electronic information resources daily, 8.3% of them indicated twice daily usage, weekly usage in terms of ranking came first with 34.0%, whilst 8.0% respondents also indicated monthly usage of the resources. Also, 21.0% of users could not remember how often they use the library resources. However, about 0.8% representing 3 respondents could not answer the question regarding usage since they claim they had no idea. From the above information indications are that, majority of students are aware and regularly use electronic information resources available at the University library daily.

In a similar research, Amoo (2018) was in consonant with the above, as he found that many 42% of the respondents he surveyed used electronic library resources weekly with about one-third 32% of them being daily users and just 18% using electronic library resources trice a day. Amoo (2018) concluded that majority of respondents surveyed use library electronic resources at least weekly. Similarly, overwhelming majority 34.0% of the students interviewed use UDS library electronic information resources at least weekly. This compares fairly well with Amoo (2018). Also, Ankrah and Atuase (2018) found that 57.9% of the 254 respondents surveyed use electronic resources weekly with 28.6% indicated they were using it daily. In this regard users access the resources more on weekly basis than any other day giving credence to the fact that student's usage of the resources is on the rise. Comparably, Amankwah (2014) in a study also indicates that, 20.0% postgraduates used electronic journals daily, 39.2% 2 or 3 times a week 15.0% once a week and majority occasionally. The outcome show that maximum number of graduates used electronic journals occasionally. Bentil (2011) also observed that, majority of respondents occasionally relied on electronic journals, a little above a quarter also access electronic journals daily, 38 access it two to three times a week and lastly, 15 once a week. This implies that there is a significant variation among users, as it has been found that maximum number of users used electronic journals occasionally as compared to other time. Interestingly,

the frequency at which users access the electronic resources vary tremendously as most literature do not consistently tilt towards one part or the other.

There was a sharp contrast to the study by Natarajan (2017) on Use and impact of electronic resources by information science students at Jimma University, Jimma, Ethiopia, majority 127 respondents access the electronic resources daily, 3 respondents use the electronic resources 2 or 3 times a week, also 3 respondents use it once a week, monthly usage was 2 respondents, and 12 respondents claim to only access the electronic resource occasionally. This when compared to electronic information resources usage in UDS library would realise that students of the later patronise the resources more than the former.

Baljinder and Rama (2009) conducted a research on use and impact of electronic journals in the Indian Institute of Technology, Delhi, India. The findings of their research came out that a maximum number of undergraduates occasionally used electronic journals, as out of 825 respondents, 232 did not answer to the question, 11 undergraduates use e-journals daily, 30 two to three times a week, 28 once a week, and majority 126 of respondents occasionally. Madhusudhan (2010) was consistent with the above as in his efforts at finding out about the frequency of use of electronic resources, he discovered that 62% of the respondents made use of electronic resources daily, 18% occasionally, and 16% two or three times a week. Only 4% used the electronic resources once a week. None of the respondents reported using electronic resources once a month.

Ebenezer (2016) (citing Madhusudhan, 2010) indicated frequency of use of the library's electronic resources (especially for those who visit the library in order to access the electronic resources) would increase if the library provided a comfortable environment for users. He again stated that respondents admitted their library was usually hot and did not have enough computers for use.

### 4.5.3 Frequency of use of library electronic information resources

Students were asked to describe how regular they use the library's electronic information resources when sourcing for information.

**Table 4.10: Frequency of use of library electronic information resources**

| Options | Frequency | Percent |
|---|---|---|
| **Never** | 23 | 6.2 |
| **Occasionally** | 92 | 24.7 |
| **Frequently** | 194 | 52.0 |
| **Daily** | 53 | 14.2 |
| **No Response** | 11 | 2.9 |
| **Total** | **373** | **100** |

**Source: Field data, 2019**

Table 4.10, Respondents indicated that they use the electronic information resources for their academic work. Most of the respondents use electronic information resources frequently 52.0% (194), some also indicated they use it occasionally 40.9% (92). The daily users were 14.2% (53) whereas 6.2% (23) revealed that they never used the resources, finally, no response recorded 2.9% (11) implying that they never answered or reacted to the question. In this regard, they have all use the electronic databases for their academic work. This was consistent with the finding of Gyesi (2016), all the respondents earlier agreed they relied on the databases for their academic work. But majority of the respondents use the electronic resources frequently, this was followed by occasionally usage and lastly, daily usage. This basically implies that, students frequently use the resources but whether for the intended purpose or not. The frequency of use of electronic resources by research scholars depends on the nature of a library's electronic collections organization, maintenance and services (Ebenezer, 2016).

### 4.6 Student academic information seeking-behaviour

This section presents results and discussion on UDS students' academic information seeking-behaviour. The above research question is to help the researcher know what driver's or motivate students to use the library electronic information resources, hence, presents information addressing specific objective four.

#### 4.6.1 Information seeking-behaviour

The researcher is conscious that respondents seek information in various ways that inure benefit to their academic wellbeing.

##### 4.6.1.1 Methods for seeking information

Predominantly, methods usually relied upon by students in seeking academic information points at Google, Google Scholar and most a time Opera Mini. Respondents were asked to choose methods they employed in seeking academic information. Table. 4.11 displays the responses.

**Table 4.11: Methods for seeking academic information.**

| Methods for seeking information | Frequency | Percent |
|---|---|---|
| **Browse books on shelf** | 197 | 53.0 |
| **Search the Manual Catalogue** | 71 | 19.0 |
| **Search Electronic Database** | 163 | 44.0 |
| **Inquire from fellow Students** | 164 | 44.3 |
| **Ask the Reference Librarian** | 105 | 28.2 |
| **Going through and Accessing References at the end of journal articles** | 68 | 18.2 |
| **Use Google** | 299 | 80.2 |
| **Use OPAC** | 49 | 13.1 |
| **Browse the Internet** | 276 | 74.0 |
| **Inquire from Lecturers** | 167 | 45.0 |
| **Reading Required Textbooks** | 204 | 55.0 |

**Source: Field data, 2019**

Table 4.11, respondents 53.0% (197) indicated the method use in seeking academic information is by browsing books on the shelf, 19.0% (71) agreed they search the manual catalogue, 44.0% (163) search the electronic database for information. With regards to inquiring from fellow students 44.3% (164) was recorded, 28.2% (105) resorted to asking the reference librarian in seeking academic information. Going through and Accessing References at the end of journal articles recorded 18.2% (68), majority of the respondents 80.2% (299) relied on Google, 13.1% (49) admitted they seek academic information by Using OPAC, 74.0% (276) indicted they Browse the Internet, 45.0% (167) inquire from lecturers and 55.0% (204) respondents go through Reading Required Textbooks as a method for seeking academic information. The findings implies that, majority of the students heavily relied on the Use of Google to seek their academic information. This further goes to indicate that students are not really conversant with the use of the library electronic information resources as they lack the knowledge and essence of this resources. This goes to confirm the findings of Gyesi (2016) in a similar research among graduate students of UPSA. His findings came out that Google and Google Scholar are the most sort after by postgraduate students. Google and Google scholar ranked 72.2%. Browse books on the shelf followed with 55.7%. Browse the internet recorded 40.9% and search electronic databases then came at 40.0%. 28.7% indicated they Inquire from fellow students, inquire from lecturers, use OPAC and ask the reference librarian all had 27.8%. This was immediately followed by reading required textbook 22.6% and finally going through and accessing references at the end of journal articles recorded 7.0%.

Asif and Nosheen (2017), respondents' were asked about the first resource they usually consulted to satisfy their information needs. It came out that more than fifty percent 51.3% of the respondents' consulted search engines followed by a good number who preferred to consult their teachers 20.3% and friends 20% respectively. It is amazing that only few respondents 7.3% bother to visit the library to consult library print resources. Findings regarding electronic resources from the study well correspond with that of (Liu, 2012). Liu study of print vs.

electronic resources usage among graduate students at San Jose University find out that almost 52% prefer to consult online resources followed by 16% who begin their search with library print resources.

### 4.6.2 Satisfaction levels with present library electronic information resources

It is imperative to know the level of satisfaction with the present library electronic information resources to establish if the investments of the library in providing electronic information resources are worthwhile. This section basically tried to find out respondents' level of satisfaction with the use of library electronic information resources.

#### 4.6.2.1 Electronic information resources that satisfies information need

Respondents were tasked to indicate the various electronic information resources that satisfy their information needs. Table 4.12 shows the responses.

**Table 4.12: Electronic information resources that satisfies information needs**

| Electronic Data Bases | Frequency | Percent |
|---|---|---|
| **Online Databases** | 213 | 57 |
| **Opac** | 42 | 11 |
| **E-Journals** | 58 | 16 |
| **E-books** | 28 | 7.5 |
| **CD-Rom** | - | - |
| **Others** | 32 | 8.6 |
| **Total** | **373** | **100** |

**Source: Field Survey, 2019**

In table 4.12, majority of the respondents 57% (213) indicated they use Online Databases to satisfy their information requirements, this followed by 11% (42) agreeing that OPAC (Online Public Access Catalogue) satisfies their information needs. Again, 16.0% (58) admitted they use E-journals in the discharge of their academic activities, 7.5% (28) indicated they relied

heavily on E-books to satisfy their information needs, alternatively, 8.6% representing 32 students depended on other sources in satisfying their information needs. The choice of CD-ROM as electronic information resource which satisfies student's information need was null. This goes to support the fact that due to advancement in technology sourcing for information on the internet has become so easy and students do not find it relatively important sourcing for information from CD-ROM.

In this instance, it can be seen that Online Databases are the ones which satisfy the information needs of bulk of the students followed by E-Journals and that of CD-ROM is the one that least satisfies the information needs of the respondents. This is sharply attributed to technological advancement in the human domain. Going back fifteen year ago, CD-ROM was the most sought after when it came to sourcing and retrieval of information. This is consistent with a study conducted by Ebenezer (2016) (citing Sharma, Zha Li and Yan, Venkatesh et al., 2010) reported that maximum number of respondents revealed that electronic information resources are very useful and very important whereas very few of the respondents disagreed with that. The study indicate the following: CD-ROM, 6(7.6%) of respondents said the CD-ROM was very important, 21(26.5%) of respondents said the CD-ROM was important, 11(13.9%) of respondents said the CD-ROM was not important and 35(44.3%) of respondents said they did not know. This finding is true as Amankwah (2014) in a related research 73(94.4%) said they were aware of Academic Database, 64(87.3%) for D-space, 67(84.8%) for CD-ROM and 24(30.4%) indicated they were aware of OPAC. The finding indicates that majority of students are aware of academic databases giving credence to what literature postulates. In another research by Amoo (2018) results was consistent with the findings of this research as majority of respondents 83.0% (83) indicated online data base satisfies their information needs, 40.0% (40) relied on OPAC (Online Public Access Catalogue) to satisfy their information needs, with regards to E-Journals 43.0% (43) admit it satisfies their information needs, 24.0% (24) vouch for E-books as an electronic resources that satisfies their information requisites. Lastly, 2.0%

(2) was recorded under CD-ROM as a resource that satisfies their information requirements. From the findings indications are that CD-ROM in recent times is not an ideal source for information acquisition and retrieval. Most student's indicated hardly do they find or chance CD-ROM nowadays.

### 4.6.3 Level of satisfaction in using library electronic information resources

Amoo (2018) (citing Cooper and Dempsey, 2008), satisfaction is the state that results after a user has favourably or positively experienced a service or a product. To further access the satisfaction level of these electronic information resources by students, they were requested to indicate whether they were satisfied with the electronic information resources provided by the university library. Table 4.13 displays the responses.

**Table 4.13: Level of satisfaction reference to electronic information resources**

| Satisfaction levels | Frequency | Percent |
|---|---|---|
| **Completely Dissatisfied** | 16 | 4.3 |
| **Most Dissatisfied** | 4 | 1.1 |
| **Somewhat Dissatisfied** | 17 | 4.6 |
| **Neither Satisfied/Dissatisfied** | 33 | 8.8 |
| **Somewhat satisfied** | 146 | 39.1 |
| **Mostly satisfied** | 90 | 24.1 |
| **Completely satisfied** | 34 | 9.1 |

**Source: Field Survey, 2019**

From the above table, 9.1% (34) of the respondents specified that they are completely satisfied with their usage of electronic information resources, 24.1% (90) are mostly satisfied with their usage of electronic resources, a little above a quarter 39.1% (146) been majority are Somewhat Satisfied, 8.8% (33) are Neither Satisfied/Dissatisfied, 4.6% (17) are Somewhat Dissatisfied, 1.1% (4) are Mostly Dissatisfied and 4.3% (16) indicated they were completely dissatisfied. This means that some of the respondents are satisfied with available library electronic information resources whilst others are dissatisfied. This shows a split in the satisfaction level of electronic information resources. The findings in this study are similar to Akyeampong

(2013), who revealed that 46% of the respondents were either highly satisfied or satisfied with electronic resources, 41% said that they were satisfactory. A study by Ali (2005) (cited in Ebenezer, 2016) also revealed that 170 out of 300 been a little above half a percent (57%) users are satisfied with the available electronic service, while a little above a quarter (33%) are not satisfied with the service. Kyesi (2016) also agrees with the finding of the study, as in his study stated that majority 69.0% respondents were satisfied with the searches with 20.0% being less satisfied, 10.4% responded very satisfied and 0.9% was dissatisfied. This indicates satisfaction was high with the use of electronic information resources. This is consistent with those of Jimoh, Okpeh and Owolabi (2010). They find out that respondents who indicated very satisfied 42.3%, partially satisfied 39.4%, and not satisfied 18.3%. But stated the need for the university library to improve upon the provision of internet to facilitate electronic information resources and databases access.

However, a study by Apenteng-Obese (2012) refuted this findings in a study on electronic resources use in University of Ghana Dental School. It was revealed that students are dissatisfied with the electronic resources available in the UG-DS library due to challenges such as limited working hours, inadequate computers and frequent power failure.

Francis et al. (2018) also sharply disagrees with the findings of this research though the settings are different as they carried out their research in Training colleges. It came out that 33.1% and 9.8% showed that they were satisfied and very satisfied accordingly. On the contrary, a higher number of 34.3% and 22.8% of the students indicated they were dissatisfied and very dissatisfied respectively. This infers that, when combined, a higher percentage 57.1% of the students were dissatisfied with the user education as equated to 42.9% users who were satisfied.

In another disposition, a study by Sharma (2009) revealed the use of electronic resources is very common among the teachers and research scholars of Guru Gobind Singh Indraprastha University and majority of the teachers and research scholar are dependent on electronic resources to get the desired and relevant information. Zha, X., Li, J. and Yan, Y. (2012) also

pointed out in a study that usefulness is considered to be an important dimension for the choice of different kinds of library electronic information resources. Their findings show that 68.1% of respondents agree that electronic information resources are useful to them as against 15.4% who thought otherwise.

### 4.6.4 Challenges of seeking information

In reviewing literature regarding challenges, study has come to light the fact that, students contended with numerous challenges in their effort to seek for academic information in libraries. The challenges invariably may serve as hindering forces to prevent information users the opportunity to reliably access information. The study sought to understand and establish the difficulties students encounter in their quest of seeking academic information at the university library. Respondents were made to select more than one challenge. Table 4.14 displays the responses.

**Table 4.14: Challenges encountered in seeking academic information**

| Challenges of seeking information | Frequency | Percent |
|---|---|---|
| **Unstable internet connectivity** | 213 | 57.0 |
| **Inadequate search skills** | 129 | 35.0 |
| **Restrictive opening hours** | 0 | 0.0 |
| **Computer Viruses** | 13 | 3.5 |
| **Frequent power cuts** | 23 | 6.2 |
| **Don't know how to use the e-resources** | 197 | 53.0 |
| **Too much information** | 0 | 0.0 |
| **Out-dated Library materials** | 86 | 23.1 |
| **Lack of time** | 12 | 3.2 |
| **Inadequate Computers** | 279 | 75.0 |
| **The need for passwords to access info.** | 178 | 48.0 |
| **Negative attitude of library staff** | 168 | 45.0 |
| **Inadequate library staff to consult** | 24 | 6.4 |
| **Unavailability of library staff.** | 0 | 0 |

**Source: Field data, 2019**

From table 4.14, respondents indicated inadequate computers 75.0% (279) as a major challenge encountered in seeking academic information, this was followed by unstable internet connection 57.0% (213), and however, most students also agreed they don't know how to use the electronic information resources 53.0% (197). The need for passwords to access information 48.0% (178), negative attitude of library staff 45.0% (168), inadequate search skills 35.0% (129), out-dated library materials 23.1% (86), inadequate library staff to consult 6.4% (24), frequent power cuts 6.2% (23), computer viruses 3.5% (13) and lack of time 3.2% (12). Too much information and unavailability of library staff recorded zero 0% entry, implying they were not problems students struggled with in the process of seeking for information. Inadequate computers had the highest response implying that, the computers meant to assist students carry out searches are not adequate and this further goes to suggest that the resources are gainfully underutilised. This work was consistent with Gyesi (2016) as the challenges confronted users in their bit to seek for information were mostly technological. He acknowledged that, need for password to access information, unstable internet connection, low Internet speed, lack of skills for accessing electronic resources, information overload and inadequate computers were some of the problems students encountered. Other challenges he enumerated were outmoded library materials, frequent power cuts, and unfriendly and inadequate library staff.



### 4.7 Factors that influence students' academic information seeking-behaviour

This section presents results and discussions on factors that influence students' academic information seeking-behaviour. Hence this section presents information that addresses specific objective five of the study.

#### 4.7.1 Reasons for the usage of library electronic information resources

Madhusudhan (2010) as cited in the work of (Ebenezer, 2016) stated that, the purposes for using electronic information resources varies from one user to the other. As a result, respondents were asked to indicate their reasons for accessing the library's electronic

information resources. The reasons outline for respondents to choose from were; for research/project work, for answering assignment questions, for entertainment, to add to stock of knowledge and others (specify).

Glancing through all the results presented with regard to reasons for usage of the electronic resources, it is clear that majority of students used the library resources because it made their studies effective, enabled the successful undertaking of their research/project works, helped most students in answering assignment questions and generally useful for their academic activities. This general finding is based on the nature of responses acquired from the question reasons for the usage of electronic resources. Figure 4.9 shows use of electronic information resources for research/project work.

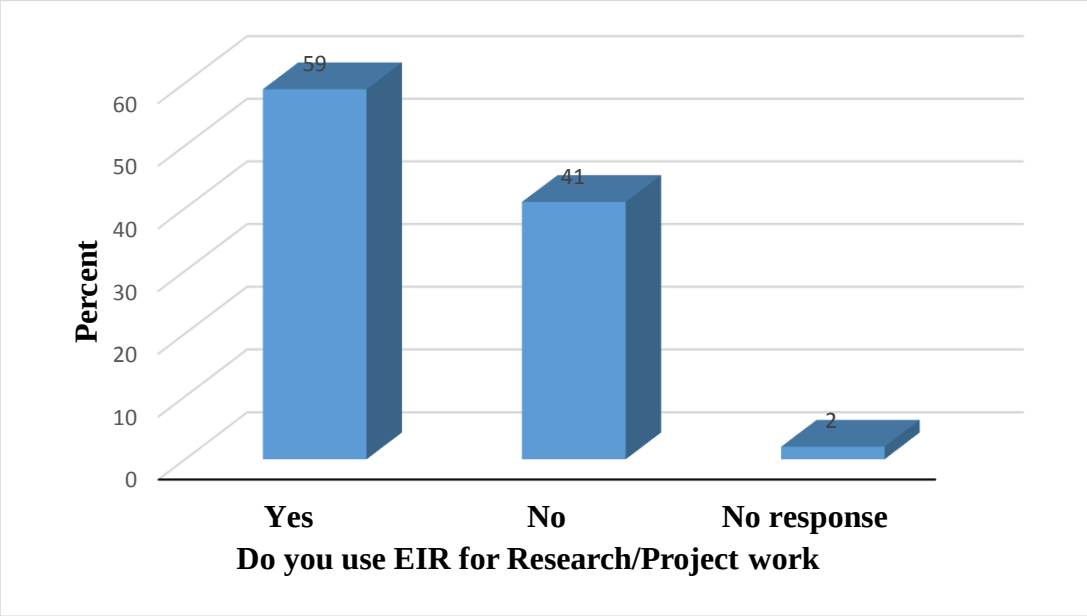



**Figure 4.9: Bar chart showing EIR use for research/project work.**

**Source: Field Survey, 2019.**

From figure 4.9, majority 59.0% of the respondents admitted they rely on the electronic resources for research /project work, whiles 41.0% indicated 'No', implying they do not rely on the library electronic resources to carry out their research work. However, 2.0% of the

respondents could not answer 'Yes' or 'No' to the statement. Implying they neither 'agreed' nor 'disagreed' with the statement.

Natarajan (2017) agrees perfectly with the finding of the study as in a research conducted on electronic resources, 97.6% respondents agreed they rely heavily on the resources to undertake their research. The findings from the research came out that, for majority of the respondents, their reasons for using electronic resources were to undertake research or project work, and to a large extent, answer assignments. This was however confirmed by the Head of electronic information resources with regard to usage of the resources. This was also consistent with the study by Madhusudhan (2010) who learnt that even though the purposes for using electronic resources as alleged by respondents were numerous, the main purposes were that the respondents used electronic resources for research work, for finding relevant information in their area of specialization, and for keeping themselves up-to-date in their subject field and getting current information.

Thanuskodi (2012) confirmed that postgraduate students are major users of information resources in academic libraries. Since research is regarded as the major element of postgraduate education (Ismail, Abiddin and Hassan, 2011). Postgraduate students need to function in an information intensive environment where information is key in every facet of their studies. They need to conduct independent research activities on social issues pertaining to their environment and the world at large through assignments, seminar papers, thesis and dissertations (Atuase, 2016). It is perceived that students rely on electronic information resources for research purposes.

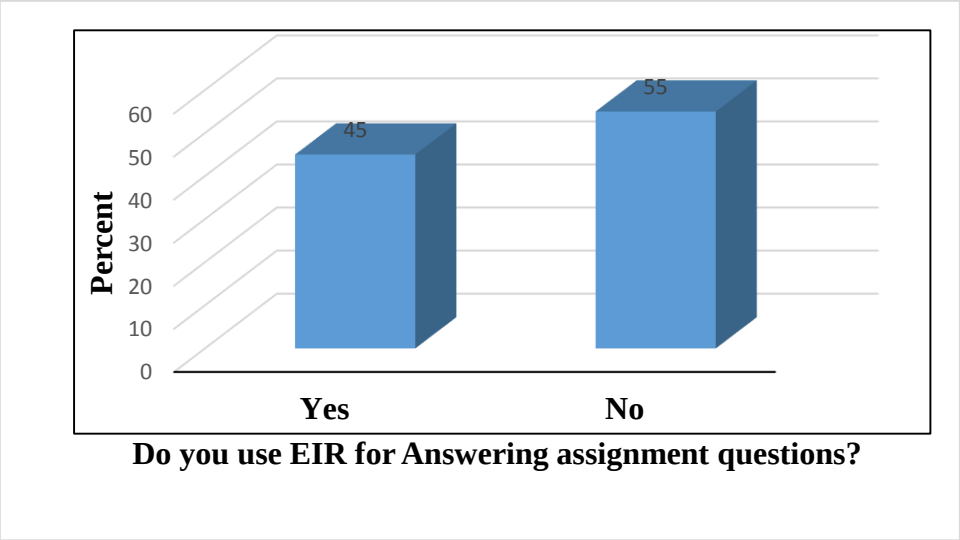



**Figure 4.10: Bar chart showing EIR use for answering assignment questions.**

**Source: Field Survey, 2019.**

Also, stated in figure 4.10, indicates the allocation of respondent's reaction to the use of electronic information resources to undertake assignments. The results indicates that 45.0% of respondents answered 'Yes' implying that lesser students rely on the electronic information resources for answering assignments. However, 55.0% responded 'No to the question. The findings implied that majority of the users do not absolutely rely on the electronic resources to answer their assignments.

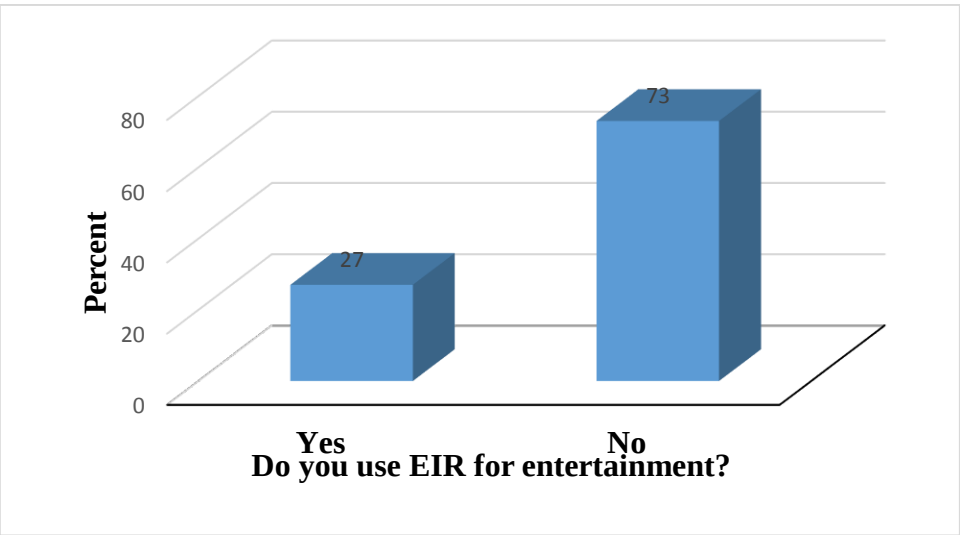



**Figure 4.11: Bar chart showing EIR use for entertainment.**

**Source: Field Survey, 2019.**

As outlined in Figure 4.11, students were also asked whether they use the library electronic information resources for entertainment. 27.0% answered 'Yes' they use the electronic information resources as source of entertainment just to relax their minds after hectic academic sessions. 73.0% answered 'No', implying they do not rely on the electronic resources for entertainment. This goes to confirm that majority of students access the electronic information resources for their academic work other than for entertainment and other related activities.

Ebenezer (2016) was consistent with this study as in his research on student's use of electronic resources in university of professional studies, Accra, 17 (3.1%) respondents admitted they use the electronic resources for entertainment and 96.9% selected other reasons. Suggesting that their common usage were for research, assignments purposes and update of knowledge. It therefore implies that students are using library electronic information resources for the main purposes for which they were created.

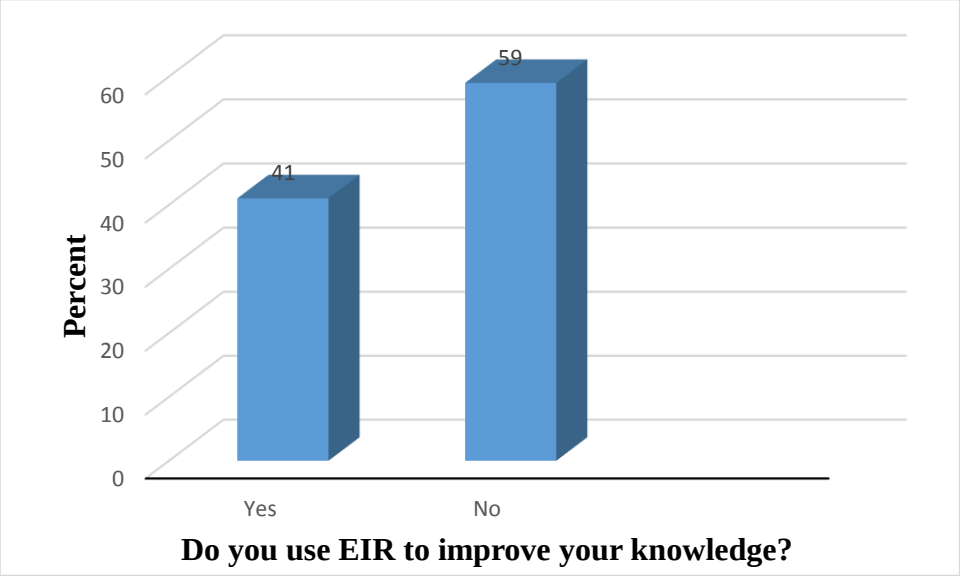



**Figure 4.12: Bar chart showing use of EIR to improve knowledge**

**Source: Field Survey, 2019.**

From Figure 4.12, respondents were ask to answered 'Yes' or 'No' as to whether they rely on the library electronic information resources of the library to improve their knowledge. Out of 370 responses, 152 representing 41.0% said 'Yes' they relied on the resources to improve their

knowledge. On the contrarily, 218 respondents representing 59.0% answered 'No' implying they do not rely on the resources to improve their knowledge.

In a similar research, Ebenezer (2016) pose question to respondents whether their use of electronic resources improved their knowledge. 54 (10.0%) admitted the resources added to their stock of knowledge. Further electronic information resources help them to a very large extend expand their knowledge-base which inure to their academic's benefits, and also it enhance their abilities to recall what they have learnt with ease. In this regard the results of the finding of fig: 4.7 contradicts the above assertion by (Ebenezer, 2016), as respondents do not agree that the electronic information resources enhances their knowledge.

Gyesi (2016) in a research stated that, respondent's access information for several reasons.

The bulk of the respondents been 80.0% access information for the purpose of career enhancement. Some said for self-development 66.1%, current affairs and employment 61.7%, research 57.4%, course work 37.4%, entertainment and politics 34.8%, global information 33.9%, health, and football 33.0%, higher education 27.8%, recreational activities 23.5%, sports 20.0% and religion 13.9% in that order. This goes to support the findings by Ebenezer (2016) that respondents access the electronic information resources to enhance their knowledge base given credence to the reason why the resources where made. This pattern of responds is not far from the views of respondents of this research, since majority of the respondents use the resources for research purposes, answering exams questions and also though 40% agree they use it to improve their knowledge. This consistent with those of Natarajan (2012) which reported that students in Delhi, India also look for information to keep abreast with current developments, to develop competence, and for career development and course work purposes such as workshop, seminar presentations and research.

**Table 4.15: Other reasons (specify)**

**Other reasons (specify)**

| Others(specify) | Frequency | Percent |
|---|---|---|
| **Examination purposes** | 8 | 2.1 |
| **Social Media** | 3 | 0.8 |
| **Unaware of E. Resources** | 3 | 0.8 |
| **None** | 15 | 4.0 |
| **Total** | **29** | **7.7** |

**Source: Field Survey, 2019.**

Table 4.15, happens to be the last item with regards to reasons for accessing the library's electronic information resources. A total of 29 students representing 7.7% were deviant and could not chose from any of the options given. In that regard, 2.1% respondents indicated they use the resources for examination purposes. 0.8% stated they use the electronic information resources for social media activities. 0.8% respondents said they have no idea as to the existence of the electronic information resources in the library. The finding indicates that students are more interested in using the resources to excel in their various fields of endeavour than rely on it for entertainment or fun.

This supported by Kwesi (2016) that apart from academic work, the students are also highly concerned about their future as it clearly shown by the high percentage of students 80% looking for information on career development, self-development 66.1%, and employment 62%. This clearly indicates the respondents desire to join the working populace soon after completing their programmes.

In conclusion, it implies that students who used the library electronic information resources, their intention for usage were; for research purposes, assignments and add to knowledge. It therefore implies that students are using library electronic information resources for the

intended purposes for which they are procured. Such an observation points out the fact that users are more dependent on the availability of library electronic information resources for meeting the needs of their daily lives in this current era (Rehman and Ramzy, 2012) (cited in Ebenezer, 2016).

### 4.7.2 Perceptions on significance of library electronic information resources

Perceived usefulness is the measure to which an individual believes that using a particular system would improve his job performance or productivity (Bentil, 2011). Respondents were therefore asked to indicate what significance electronic information resources of the library had on their learning abilities. Student independent views are shown on Table 4.16.

**Table 4.16: Student perceptions on significance of library electronic information resources**

| Options | Frequency | Percent |
|---|---|---|
| **It makes me retrieve information with ease** | 231 | 61.9 |
| **It makes me excel in my academics, since studying on a computer makes me sit long** | 130 | 34.9 |
| **It helps me to expand my knowledge-base** | 243 | 65.1 |
| **It enhances my ability to recall what I have learnt easily, since I can easily visualize computer-based information** | 161 | 43.2 |
| **No Response** | 3 | 0.8 |

**Source: Field Survey, 2019**

Note: Respondents were granted the opportunity to choose multiple answers.

From Table 4.16, its evident that the respondent's views on the significance of library electronic information resources on their learning abilities were that; library electronic information resources make them retrieve information with ease 231(61.9%), respondents who

admitted they excelled in their academics since studying on a computer makes them sit long attained 130(34.9%), the question EIR helps them to expand their knowledge-base had 243(65.1%), and enhance their abilities to recall what they have learnt with ease 161(43.2%). Additionally, other respondents provided various perceptions as to why it's significant to use the electronic information resources, since all their options were not captured. However, 3(0.8%) of the respondents provided no responses. The table above reveals that, majority constituting 243(65.1%) of the respondents indicated that the resources helps them to expand their knowledge-base. It can therefore be inferred that information available in electronic information resources have proved to be an asset of great value to many of the respondents and have allowed them to expand their knowledge and also to a large extend find significant materials they would not have otherwise found.

Further to that, Perception is the key in adopting an innovation. This is because for one to adopt an innovation, it depends on one's perception on the innovation. The person assesses the bad and the good aspects of it before adopting it. User perception of library electronic information resource service offer academic libraries with important understanding into how substantial these services are to users. It brings to light electronic information resource services that have impact and those that need to be improved. User expectations and perceptions are indicators in the determination of service quality in most service organizations since these would help them to be in the position of providing information to meet the competitive environment by (Amankwah, 2014) (citing Metha, Lalwani and Soon, 2008). In another disposition, Amankwah (2014) in one of the objectives of his study find out the perception of postgraduate students in the use of electronic information resource services of Sam Jonah Library. It was necessary to investigate this aspect because student's expectations and perceptions may influence the way in which electronic resources are accessed and used. Jayasundara (2013) (cited in Amankwah, 2014) that information service providers must fully understand user's information expectations and perceptions to prevent the misfit between the user information

needs and service delivery. The study revealed that although electronic information resources met the information needs of the postgraduate students, they also held the view that electronic information resources were not easily accessible due to the limited subscribed titles, inadequate computers in the library.

This implies that student's perception of electronic information resources is paramount because it provides the library with valuable insights into how students value library electronic information resource services. It also provides the opportunity for information professionals to be aware of their services that meet student's information needs and those that need to be improved. This challenges the library to develop appropriate strategies or policies to meet user information needs.



### 4.7.3 Reliability of library electronic resource information

There was the need to find out the reliability of library electronic information resources, for that matter students were asked to indicate how reliable electronic information resources are. Table 4.17 shows the responses.

**Table 4.17: Reliability of library electronic information resources**

| Options | Frequency | Percent |
|---|---|---|
| **Reliable** | 134 | 35.9 |
| **Very Reliable** | 96 | 25.7 |
| **Slightly Reliable** | 106 | 28.4 |
| **Not Reliable** | 13 | 3.5 |
| **No Response** | 24 | 6.4 |
| **Total** | **373** | **100** |

**Source: Field data, 2019**

Table 4.17 above, 134(35.9%) respondents agreed library electronic information resource are Reliable, 96(25.7%) indicated they are Very Reliable, 106(28.4%) said they are Slightly

Reliable, 13(3.5%) believed they are Not Reliable and 24(6.4%) indicated no response. From the findings, though there is a high satisfaction rate among uses the number of respondents (28.4%) who indicated electronic information resource are Slightly Reliable cannot be down played since it confirms that greater part of the respondents do not totally believe in electronic information resources. This consistent with those of Owolabi, Jimoh and Okpeh (2010). They find out that students who were very satisfied 42.3%, partially satisfied 39.4%, and not satisfied 18.3%. But much efforts needs to be done in the library to effectively enrich the provision of online electronic resources and databases.

This was refuted by Agyemang-Sereboo (2010) (cited in Kwesi, 2016), whose study on use of electronic resources by Graduate students of Valco hall revealed that majority 52.8% of the respondents find electronic resources information very Reliable. 28.0% indicated Slightly Reliable, 14.8% indicated Reliable and 3.5% indicated Not Reliable. This assertion further reiterates how important the resources are to graduate students. This was also consistent with Amoo (2018), he revealed that 27.0% of the respondents find electronic information resources Reliable, 24.0% said they are Very Reliable, 33.0% said they are Slightly Reliable, and 13.0% said they are Not Reliable. The findings indicates that the total number of students who does not totally believe in the electronic information resources cannot be over looked since they are just a little below respondents who agreed the resource were reliable. Amoo (2018) also indicated that respondents were asked to reveal how they evaluated and ranked the relevancy of search results available through electronic resources usage. Only 10% students considered the search results of electronic resources very relevant. Majority (220, 73%) categorized the search results between somewhat relevant, to relevant. It was evident that only 17% students considered that search results are less relevant or irrelevant.

**4.8 Challenges of library electronic information resources usage**

The challenges student's encounter whiles using electronic information resources of the library is the six and the final objective that the study seeks to unearth.

### 4.8.1 Challenges faced in using library electronic information resources

In the dissemination of electronic information resources for research work there are many difficulties encountered (Madhusudhan, 2010). In order for academic libraries and information centres to improve their electronic information resource services, it is essential to better understand the obstacles users come across in accessing these resources (Ankrah and Atuase, 2018). Hence, students were required to offer detailed information concerning the challenges encountered while using the electronic information resources of the university Library. Table 4.18 presents the challenges.

**Table 4.18: Challenges faced in using library electronic information resources.**

| Challenges | Frequency | Percent |
|---|---|---|
| **Slow access speed** | 246 | 66.0 |
| **Lack of searching skills** | 107 | 28.7 |
| **Information Overload on the internet** | 40 | 10.7 |
| **Its takes longer time to view/download pages** | 125 | 33.5 |
| **Limited subscribed titles** | 56 | 15.0 |
| **Not easy to use** | 49 | 13.1 |
| **Difficulty in finding relevant information** | 112 | 30.0 |
| **Power cuts** | 66 | 17.7 |

**Source: Field data, 2019**

Table 4.18 above, students were required to choose as many options they deemed possible. As a result Information overload on the internet recorded 10.7% (40) implying information overload was not much of an issue with regards to challenges faced by respondents. Not easy to use was second in terms of low percentage 13.1% (49). 15.0% (56) Indicated Limited Subscription, 17.7% (66) respondent indicated Power Cut was their challenge. Lack of

Searching skills recorded 28.7% (107), respondents who indicated they had difficulty in finding relevant information 30,0% (112), 33.0% (125) respondents said it takes longer time to view /download pages and majority 66.0% (246) of the students agreed that slow access speed was a bigger challenge to them. This an indication that though the resources are available for student use, accessing them do not come easy as slow internet speed hinders information access and this goes a long way to affect usage. This inconsonance with Ahmed (2013) who reported slow download speed as a major constraint to overall usage of the university subscribed resources. He further stated that, inadequate bandwidth and slow internet connection are other challenges respondents identified. The study by Manda (2005) (cited in Anajoyce, 2016) stipulates that slow internet connection has been a challenge preventing access and use of electronic resources. According to Anajoyce (2016), the ability of the bandwidth for many libraries in Tanzania was below 1 MB/s, in essence only one library (The University of Dar es Salaam Library – main Campus) could boast of 2 MB/s. This stimulated frequent complaints by users that access to internet was not adequate and that there is slow system speed (Anajoyce, 2016). The findings further agrees with Ankrah and Atuase (2018) (citing Bhatt and Rana, 2011) acknowledged that problems that are common with e-resources are low speed connectivity, lack of awareness about statutory provision for accessing electronic information resources by the institutions, technical problems, unavailability of sufficient electronic information resources, doubts in permanency, high purchase price and lack of legal provision. Shukla and Mishra (2011), carried out a similar study which revealed that greater number of research scholar's low internet connectivity have been their main concern.



### 4.8.2 How library electronic information resources usage can be effectively ensured

Singh et al. (2011) indicated that information specialists over the years have tried to understand the underlying issues that encourage users to search for information. To find effective ways of ensuring the use of library electronic information resources, respondents were asked to give

their views on how effective use of library electronic information resources can be ensured. Table 4.19 indicates student's responses.

**Table 4.19: How electronic information resources usage can be effectively ensured**

| Options | Frequency | Rank |
|---|---|---|
| **There should be Intensification of Orientation** | 242 | 1st |
| **More of Awareness Programmes** | 195 | 4th |
| **Reliable and enough network computers** | 226 | 2nd |
| **Problems of Network should be solved** | 217 | 3rd |

**Source: Field data, 2019**

NB: Respondents selected multiple options as applicable.

Responses from students indicated majority 242 (1st) said orientation should be intensified, 226 (2nd) agreed more awareness programmes should be intensified. Problems of network should be solve recorded 217 (3rd), and lastly, 195 (4th) been the least indicated that network problem should be solved. This shows that network problems wasn't much of an issue with regards to library electronic information resources usage. And this further goes to confirm the head of the library electronic information resources assertion that much has been done to improve the low internet connectivity as the bandwidth was upgraded to facilitate faster internet connectivity. Majority of respondents indicated orientation should be intensified since it has the potential to deprived users of relevant information for academic work. This contrarily to Amoo (2018) in a similar research indicated that when network is improved usage effectiveness can be ensured. This was followed by creating more awareness programmes, also he indicated that orientation should be intensified to help ensure effective usage of the resources. In effect indications are that each respondents have a different view on what needs to be done to ensure effective usage of the resources.

Library needs to teach students in using the library and web resources. It indicates that, users are not comfortable when it comes to access electronic resources and this the library needs to do more to sustain student interest. In other to keep students interest in the resources, this findings compared favourably with Amoo (2018) revealed that 28.0% of the students said the university Library needs to subscribe to more academic databases. 11.0% also indicated the Library should add more computers to the Library. 33.0% said they need to provide improved access to electronic resources (online databases, e-books, etc.) whereas 28.0% agreed the Library needs to provide training in using the library and web resources.

### 4.8.3 Library's priority in terms of information provision

Students were consequently requested to indicate what they think the library's priority should be in terms of information provision. Table 4.20 displays the responses.

**Table 4.20: Priority in terms of information provision**

| Options | Frequency | Percent |
|---|---|---|
| **Subscribing to more academic databases** | 113 | 30.1 |
| **Adding more computers to the library** | 33 | 9.0 |
| **Providing improved access to electronic resource (online databases, e-books etc.)** | 116 | 31.0 |
| **Providing training in using library and web resources** | 111 | 30.0 |

**Source: Field data, 2019**

From the table above, it is revealed that 30.1% (113) of the respondents said the Library needs to subscribe to more academic databases. 9.0% (33) of the students also said the Library should add more computers to the reader service. 31.0% (116) said the Library must provide improved access to electronic resources (online databases, e-books, etc.) whilst 30.0% (111) said the providing training in using library and web resources. Aikins et al. (2019) in a related research users' perspectives on the services of university for development studies library; A case of a multi-campus institution in Ghana. They employed a survey method and a proportionate stratified sampling technique to ensure fair representation since they were dealing with multi-campus. Students were asked ways the library could do to improve services, the most pressing suggestion among the campuses was the need for the library to update catalogue with new books and much more the need to extend library's operating hours during exam weeks.

Amoo (2018) was consistent with the findings of this research, as it revealed that majority agreed the library must provide improved access to electronic resources (online databases, e-books, etc.), this was followed closely by two options that is, the library needs to subscribe to more academic databases and the library needs to provide training in using the library and web resources. And lastly, respondents indicated the library management should add more computers to the library, implying if the library should prioritise the above mentioned issues it would go a long way to improve access and usage.

# CHAPTER FIVE

## 5.0 SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

### 5.1 Introduction

This chapter recaps the findings of this study which is typically based on the study objectives. This chapter also draws a conclusion and recommends solutions to the difficulties students faced whiles using the library's electronic information resources of the University for Development Studies and suggests areas for further research.

### 5.2 Summary of findings

The study focused on the information – seeking behaviour and library electronic resources usage among students of the University for Development Studies.

The study was aimed at student knowledge about University for Development Studies library electronic information resources, usefulness of UDS library electronic information resources to addressing students information needs, extent of use of library electronic information resources by students of UDS in seeking academic information, student academic information seeking-behaviour, factors that determine students' academic information seeking-behaviour and finally, challenges UDS students encounter using library electronic information resources were studied with the purpose of making recommendations to effectively enhance usage and access of the electronic information resources of the university for development studies library.

#### 5.2.1 Knowledge about UDS library electronic information resources

The study ought to find out about student's knowledge with regards to electronic information resources in the University for Development Studies library. The findings showed that majority of the students were very much aware of the electronic information resources available at the library. The various electronic information resources students were aware of in the library are online databases, OPAC, e-journals, E-books and lastly CD-ROM. Subsequently, students were asked whether they have access to library electronic information resources whenever they

wanted it. Majority indicated 'No' they did not have access to the resources when they needed it, and this was as a result to power outages, unreliable internet connections among others.

Creating awareness and improving usage of the library electronic information resources, the library management engaged in promotional strategies to improve access and usage. Some of the promotional strategies they used were e-mails, hence, they send e-mails to students and lecturers who were duly registered with the library. Other marketing tools employed by the library were branding, advertising using 'Pull-up's' and posters placed at vintage places. The library as indicated by the manager of the electronic resources also engaged in advertising as a way of marketing the library resources. The managers also use orientation in marketing the resources to users. Most students agreed that the resources are well publicize 53.4%, but the number of students who disagreed 45.5% with this assertion cannot be override, implying that much has not been done to promote the library electronic information resources at University for Development Studies.

### 5.2.2 Usefulness of UDS library electronic information resources to addressing student's information needs

The second objective of the study was to look at the usefulness of electronic information resources of the university library and how it addresses student's information needs. The findings indicated majority of the students agreed the resources were useful to them. Further it revealed that most students relied on the resources to expand their knowledge, whiles others retrieve information with ease using the resources, also it assisted students to recall what have been learnt easily, others agreed it makes them excel in their academics since siting on the computer makes them sit long hence prolonged learning, all this in essence helped users excelled in their academic endeavours. Majority also indicated they were very comfortable using the resources. The study further sought to find out the level of computer skills of students with regards to using electronic information resources. It was revealed that majority of the uses were made up of intermediate and beginners, and only a few others were advance users. In fact,

it could not have been without students who one way or the other had never had skill in computing. The findings revealed that 56.0% student indicated they were skilled in using the library electronic information resources, whiles 44.2% answered no they do not have the skill to use the electronic information resources. This is very worrisome, since the number of students involve is great and management of the library electronic information resources would have to draw up strategies to address the situation in other to increase usage and subsequently improve student academic outcomes. With regards to comfortably using electronic information resources respondents indicated they were comfortable using the resources. Lastly with regard to this objective, the findings revealed most students find E-Journals easy to use and this was followed by OPAC, CD-ROM and lastly E-Books.



### 5.2.3 Extend of use of library electronic information resources

The third objectives of the study was to determine the extent of use of library electronic information resources by students of UDS. The findings revealed that majority indicated they could not remember when they started using the resources, this was followed by 2months ago, whiles 1month, 3months, 4months, 8months, 2years, and 3years, were other durations students indicated they had been using the resources. The least duration of usage was 2weeks. The findings also revealed the frequency of usage and the most was weekly, followed by daily, and the least been monthly. Indicating that the electronic information resources were regularly patronized. There was also indication that majority of students use the resources frequently. With often use of library electronic information resources, greater number of users indicated they frequently used the electronic information resources, others indicated they used the resources daily and occasionally. Whereas a few indicated they never used the resource though they were very much aware of them.

### 5.2.4 Student academic information seeking-behaviour

Another key objective of the study was to find out student academic information seeking-behaviour. It was evident that students got to know of the library electronic information resources through orientation and colleagues, though there were others but these 2 stood out as drivers of channel of awareness. Findings further revealed that students were not so enthused when it came to level of satisfaction with regards to electronic information resources. 39.1% were somewhat satisfied, 24.1% were mostly satisfied, 9.1% completely satisfied, those who were neither satisfied nor dissatisfied 8.8%, somewhat dissatisfied 4.6%, completely dissatisfied 4.3% and finally most dissatisfied 1.1%. It was evidently clear that students were not impress with the current state of electronic information resources of the library. Findings about reliability of library electronic information resources indicates that, respondents did not totally have faith in the resources hence the need for management to work at whipping up student's interest.

### 5.2.5 Factors that determine students' academic information seeking-behaviour

This the five objective of the study which addresses the reasons for which students used the electronic information resources of the university Library. The findings revealed that the reason students used the electronic information resources was mainly to undertake research or project works, and to some extend to answer assignments questions and to improve their knowledge. Another determinant that influenced usage of the electronic information resources was that, it helps majority of users expand their knowledge-base. Also, most users relied on the resources for easy retrieval of information.

### 5.2.6 Electronic information resources challenges associated with its usage

The findings of this study revealed several challenges confronted by users in their quest to access the library electronic information resources at the library. The challenges included; Slow access speed, Lack of searching skills, Information Overload on the internet, takes longer time to view/download pages, Limited subscribed titles, Not easy to use, Difficulty in finding

relevant information and lastly Power cuts. The study therefore states that in order to ensure efficient utilisation of library electronic information resources, management of the library should deploy conscious effort to resolve the identified challenges.

### 5.3 Conclusion

Contemporary teaching, learning and research in universities have been heavily supported in this era by library electronic information resources. Library electronic information resources has become famous among students in terms of convenience and access to modern information geared towards academic excellence. For this reason, it is pragmatic for academic libraries to make electronic information resources a priority since is a major information resource and has the potential of whipping up user's interest which in essence leads to usage. Regrettably, the library electronic information resources were not utilized to their fullest by respondents because of challenges such as slow internet connectivity, power outages, inadequate training, restrictions of access such as passwords and usernames, and other limitations such as inadequate computers, and inadequate searching skills which constrained students to depend more on unwilling library professionals for their information searches. These has led to a decrease in the accessibility and usage of the library electronic information resources. Moreover, library electronic information resources have today added value to library collection leading to the satisfaction of student's unique needs, as well as faculty and research scholars with less risk and time. Library electronic information resources have a greater prospect of increasing the learning opportunities offered to students in particular. Nonetheless, librarians all around the world agree to the fact that library electronic information resources are being woefully underutilized. This assertion is not different from what pertains in University for Development Studies (UDS). However, there must be a justification for investment on library electronic information resources hence the need for management to work at addressing the challenges brought forth by students who arguably are the library major clients.

### 5.4 Recommendation

Based on the findings and conclusions drawn from the study, it can be seen that, all is not well with student's academic information seeking behaviour and usage of the library electronic information resources. As a result the following recommendations are made:

**A. Awareness of the library**

The library needs to create student's awareness with regards to services and resources available. The findings revealed low library patronage. The library must insistently promote its resources and services by adopting modern marketing strategies such as use of social media (examples linkedIn, pinterest, whatsapp, twitter, facebook, and so on.), considering the fact that the students have a preference for using Internet in their information seeking. Besides, management should organise information literacy programmes and impress upon students to take part in other to equip students with the requisite knowledge to access and retrieve information to enhance their academic and research work.

**B. Training**

The findings brought to light that library staff were not friendly and approachable making it difficult for students in need of assistance. There is the need to intensify customer care training for library staff to help them acquire the needed interpersonal and customer service skills so as to enhance their work ethics to inure benefit to students as they seek for information in the library.

**C. Enhance infrastructure**

Authorities of the University for Development Studies should consider an upgrade of the wireless connection available at the Library for use by students within any area of the library perimeter. This will help prevent the overcrowding of the Library's electronic information resource section known as (Research commons) by students, because with the wireless internet connection, users can sit anywhere within the library or even outside the library block to access the electronic information resources without having to essentially visit the electronic

information resources section. The library management should further work on the standby generator of the library block to ensure its effectiveness and efficiency, since most of the time it's either out of fuel or a part is broken down.

**D. Improve computer access**

The study found out that there were limited computers in the library electronic resource centre, for that reason, management should support the library by providing adequate computers in the library for students use. This will enable patrons without laptops to have access to electronic information resources at all times without constrains.

**E. Suggestions for further study**

Further research should be conducted about use of library electronic information resources, to help ascertain whether postgraduate students really use the electronic information resources. This to help get a holistic picture of the use of the library electronic information resources, since the respondents of the research were mostly undergraduate with just a few graduate students hence generalising the study would be misleading. Finally, research could further be conducted on how students' computer illiteracy skills affects their use of library electronic information resources, since much wasn't done to investigate that area of need.



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# APPENDICES

## Appendix A

## QUESTIONNAIRE

**UNIVERSITY FOR DEVELOPMENT STUDIES**

**DEPARTMENT OF AGRICULTURAL EXTENSION RURAL DEVELOPMENT AND GENDER STUDIES**

**NYANKPALA CAMPUS**



Dear Colleagues,

This questionnaire seeks to solicit facts on the "Information – seeking behaviour and electronic library resources usage among students in the University for Development Studies".

The researcher is a final year MPhil student of the department of agricultural extension rural development and gender studies, University for development studies.

Information given will be strictly used for research purpose only. Your candid response to the following questions will be much appreciated. Thank you in advance, for your cooperation.

All information provided will be treated with utmost confidentiality and used for academic purposes only.

Thanks for your co-operation.

**Please tick in the boxes provided below, the right answers to the questions and comment where necessary.**

**SECTION A**

**Biographic Data**

1. Gender: Male [ ] Female [ ]

2. Age Group: (a) 17-25 [ ] (b) 26-35 [ ] (c) 36-45 [ ] (d) 46-55 [ ] (e) 56 and above [ ]

3. Department:

a. Agriculture economics and extension [ ]

b. Agricultural mechanization and irrigation technology [ ]

c. Agronomy [ ]

d. Animal science [ ]

e. Biotechnology [ ]

f. Food science and technology [ ]

g. Horticulture [ ]

h. Family and consumer science [ ]

i. Agriculture and consumer science education [ ]

j. Veterinary science [ ]

**SECTION B**

**Knowledge of electronic resources**

4. Are you aware of the electronic resources in the University Library?

a. Yes [ ] b. No [ ]

5. If yes, which of the following electronic resources are you aware of? (Tick as many as are applicable).

| | | |
|---|---|---|
| a. | Online Databases | |
| b. | E-journals | |
| c. | OPAC(Online Public Access Catalogue | |
| d. | E-Books | |
| e. | CD-ROM | |

f. Other (Specify)…….....

6. Where do you access internet? (You may tick (√) more than one answer)

i. Library [ ] ii. Home [ ] iii. Computer Lab iv. [ ] v. Internet Café [ ]

vi. Specify others……..

7. What is the level of your computer skills? i. Advance [ ] ii. Intermediate [ ]

iii. Beginner [ ] iv. None [ ]

8. How did you get to know of the electronic resources?

a. Colleagues [ ] c. Orientation [ ]

b. Library website [ ] d. Notices [ ] e. Other ……

9. Has the electronic resources been well publicized to students of this university?

a. Yes [ ] b. No [ ]

10. If No, what should be done?

……

……

**SECTION C**

**Frequency of use of electronic resources**

11. How long have you been using the e-resources of the University Library?

a. Less than 1 year [ ] c. 2 years [ ] e. 4 years and more [ ]

b. 1 year [ ] d. 3 years [ ]

12. How regularly do you use the e-resources?

a. Daily [ ] c. Weekly [ ] e. Other ……..

b. Twice daily [ ] d. Monthly [ ]

13. For what reasons do you use the electronic resources?

a. For research/project work [ ] c. For answering assignment questions [ ]

b. For entertainment [ ] d. To add to my stock of knowledge [ ]

e. Others (specify) ……..…

14. Which of the library's data bases do u often use most? Tick as many as applicable (√)

| **Data base** | | |
|---|---|---|
| a. | Emerald | |
| b. | Agora | |
| c. | Cab Direct | |
| d. | Science direct | |
| e. | Jstor | |
| f. | Hinare | |
| g. | OARE | |
| h. | Taylor and Francis | |
| i. | Ebsco | |
| j. | Sage online | |
| k. | Open thesis | |
| l. | Goali | |
| m. | IMF eLibrary | |
| n. | Oxford journals | |
| o. | Liebert Online | |
| p. | Wiley Publications | |
| *Others*…… | | |

**SECTION D**

**Usefulness and ease of use of electronic resources**

15. Does the use of these e-resources have any significance/impact on your academics?

a. Yes [ ] b. No [ ]

16. If yes, what significance/impact does it have on your academics? Choose as many as applicable.

a. It makes me retrieve information with ease [ ]

b. It helps me to expand my knowledge-base [ ]

c. It makes me excel in my academics, since studying on a computer makes me sit long [ ]

d. It enhances my ability to recall what I have learnt easily, since I can easily visualize computer-based information [ ]

e. Other ……..……..

17. Are you comfortable with using electronic resources?

a. Yes [ ] b. No [ ]

18. Which of the following electronic resources do you find easy to use? (You may tick as many as applicable)

a. Online Databases [ ] b. OPAC (Online Public Access Catalogue) [ ] c. E-Journals [ ]

d. E-books [ ] e. CD-ROM [ ] f. Other (Specify) …….

19. Are you skilful in using electronic resources?

a. Yes [ ] b. No [ ]

20. Are you skilled in formulating search queries?

a. Yes [ ] b. No [ ] c. don't know [ ]

21. Is it easy to get required information?

a. Yes [ ] b. No [ ]

**SECTION E**

**Level of satisfaction with current electronic resources**

22. Which of the following satisfy your information needs? (Tick as many as applicable)

a. Online Databases [ ] b. OPAC (Online Public Access Catalogue) [ ] C. E-Journals [ ]

d. E-books [ ] e. CD-ROM [ ] f. Other (Specify)……

23. Please indicate your level of satisfaction in using e-resources by ticking (√).

| Completely Dissatisfied | Mostly Dissatisfied | Somewhat Dissatisfied | Neither Satisfied/Dissatisfied | Somewhat Satisfied | Mostly Satisfied | Completely Satisfied |
|---|---|---|---|---|---|---|
| | | | | | | |

24. How reliable are electronic resources information?

a. Reliable [ ] d. Not reliable [ ]

b. Very reliable [ ] e. Other (please specify) ……

c. Slightly reliable [ ]

25. What should the library's priority be in terms of information provision?

a. Subscribing to more academic databases [ ]

b. Adding more computers to the library [ ]

c. Providing improved access to electronic resources (online databases, e-books, etc.) [ ]

d. Providing training in using library and web resources [ ]

e. Other ……..

**SECTION F**

**Information seeking behaviour**

26. Which of these activities describe some of the methods you employ in looking for information?

(Please tick as many as applicable)

| | | | |
|---|---|---|---|
| Browse books on the shelf | | Use Google | |
| Search the manual catalogue | | Use OPAC | |
| Search electronic databases | | Browse the internet | |
| Inquire from fellow students | | Inquire from lecturers | |
| Ask the reference librarian | | Reading required textbook | |
| Going through and accessing references at the end of journal articles | | | |

Any other (please specify)……

27. How often do you use the electronic databases? (Please choose one)

a. Never [ ] b. Occasionally [ ]

c. Frequently [ ] d. Daily [ ]

e. Any other (please specify)……

28. How would you describe the satisfaction with your electronic database searches? (Please choose one)

a. Very satisfied [ ] b. Satisfied [ ]

c. Less satisfied [ ] d. Dissatisfied [ ]

e. Any other (please specify)……

**SECTION G**

**Challenges of seeking information**

29. Which of these challenges do you encounter in looking for information from your library?

(Please tick the appropriate answer under the number)

Using 1─Strongly disagree, 2─Disagree, 3─Neutral, 4─Agree and 5─Strongly agree.

| | Strongly Disagree | | | | strongly agreed |
|---|---|---|---|---|---|
| Challenges of seeking information | 1 | 2 | 3 | 4 | 5 |
| Unstable internet connection | | | | | |
| Inadequate search skills | | | | | |
| Restrictive opening hours | | | | | |
| Computer viruses | | | | | |
| Frequent power cuts<br>Inadequate information materials | | | | | |
| Don't know how to use the e-resources | | | | | |
| Low internet speed | | | | | |
| Too much information | | | | | |
| Out-dated library materials | | | | | |
| Lack of time | | | | | |
| Inadequate computers | | | | | |
| The need for passwords to access information | | | | | |
| Negative attitude of library staff | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| (eg. Rude, unfriendly, not helpful) | | | | | |
| Inadequate library staff to consult | | | | | |
| Unavailability of library staff | | | | | |

Any other (please specify)……

**SECTION H**

**Challenges associated with the use of electronic resources**

30. Do you have access to electronic resources whenever you want?

a. Yes [ ] b. No [ ]

31. If No, why (please state)……

32. What are some of the challenges you face in using the e-resources?

a. Slow access speed [ ] e. Limited subscribed titles [ ]

b. Lack of searching skills [ ] f. Not easy to use [ ]

c. Overload of information on the Internet [ ] g. Difficulty in finding relevant information [ ]

d. It takes too long to view/download pages [ ] h. Power cuts [ ]

i. Other (Specify).....

33. How can effective use of these e-resources be ensured?

a. Orientation should be intensified [ ]

b. There should be more awareness programmes [ ]

c. There should be enough networked computers [ ]

d. Network problems should be solved [ ]

e. Other …….

34. Comments

……

……

……

**Thank you for taking the time to complete this questionnaire**



**Appendix B**

**UNIVERSITY FOR DEVELOPMENT STUDIES**

**DEPARTMENT OF AGRICULTURAL EXTENSION RURAL**

**DEVELOPMENT AND GENDER STUDIES**

**NYANKPALA CAMPUS**

**QUESTIONNAIRE FOR LIBRARY STAFF**



Dear Sir/Madam,

I am Baasha Inusah,

A student at the department of agricultural extension rural development and gender studies, University for development studies, Nyankpala. Conducting a study entitled: Information – seeking behaviour and electronic library resources usage among students in the University for Development Studies, as part of the requirement for the award of a Master of Philosophy (MPhil) degree in innovation communication. I would be very grateful if you could spare some few minutes to answer the questions below to the best of your ability. Please be assured that your responses are completely anonymous and would be used solely for academic purposes. Your co-operation is fully appreciated.

Thank you

SECTION A:

BACKGROUND INFORMATION

1. How long have you worked in the library? Please tick the appropriate box ( √ )

a. 18-25 ☐ b. 26- 30 ☐ c. 31-35 ☐ d. 36-40 ☐ f. 40+ ☐

2. What library training do you have? …….

……..

……..

3. What is your level of education in marketing?

…….

……

4. Please explain your understanding of marketing with regards to library and information services? .....

……

……

SECTION B: POLICIES ON LIBRARY MARKETING

5. Do you see a need for the library to market its services?

a. Yes ☐ b. No ☐

6. If yes, why do you think it is necessary for a library to market its services? .....

……..

……..

7. Does the library have a marketing policy?

a. Yes ☐ b. No ☐ (*if NO, kindly move to section c*)

8. Can you describe the current marketing policy in your library? ……

……..

……..

……..

……..

9. In your opinion, why should a library have a marketing policy? ……

……..

……

……

……

SECTION C: TECHNIQES USED IN MARKETING LIBRARY RESOURCES

10. Which of these marketing techniques does the library use? (*Tick where applicable √)*

| No. | Types of marketing technique | Definition | √ |
|---|---|---|---|
| 1. | Banner/posters | Banners or posters used to describe or promote an e-resource | |
| 2. | Blackboard | An e-resource is promoted via the online classroom companion | |
| 3. | Flyers/brochures | A printed flyer or brochure informs about or describes an e-resource | |
| 4. | Giveaways | Pens, pencils, notepads | |
| 5. | Bookmarks | Printed bookmarks with a marketing slogan or information about an e-resource | |
| 6. | Branding | A specific effort to identify an e-resource as belonging to a library | |
| 7. | Calendar | An annual calendar about the e-resources | |
| 8. | Collaboration | The library works with an organization outside the library to promote e-resources | |
| 9. | E-mail (external) | E-mail sent to patrons | |
| 10. | Faculty/professionals as marketing tool | Faculty or professionals on campus tell colleagues and students about e-resources | |
| 11. | Mascot | A mascot for marketing campaign developed | |
| 12. | Newspaper alert | A newsletter exclusively about e-resources | |

| | | | |
|---|---|---|---|
| 13. | Online social networks | Social networking software like Facebook, twitter, Instagram etc. are used to alert patrons to e-resources | |
| 14. | Screen savers | E-resource descriptions are put on screen savers at the library and workstations. | |
| 15. | Students as marketing tool | Students on campus tell other students about e-resources | |
| 16. | User guide | A guide designed to instruct patrons how to use an e-resource | |
| 17. | Web page alert | An announcement of a new e-resource, posted on the library web page | |
| 18. | Word of mouth | A patron tells another patron about an e-resource | |

11. How would you describe the effectiveness of these technique in the marketing of your services? …….

……..

…….

12. Which Social Networking Sites (SNSs) are used to market the library services?

……

……

……

13. What factors influenced your choice of the particular SNSs in marketing your services?

……

……

……

……

14. What kind of services does your library provide through SNSs? ……....

……

……

15. How would you describe the patronage of your services since you started using the SNSs?

……..

……..

SECTION D: CHALLENGES FACED BY THE LIBRARY IN MARKETING ELECTRONIC RESOURCES

16. What are some of the issues or challenges you face in marketing your services?

……

……

……

……

17. What are the causes of these challenges? ……..

……..

……..

……..

……..

18. How can these challenges be prevented? ……...

……...

……...

……...

……

**Sample size determination: Sample size with a given population by Krejcie and Morgan (1970)**

| N | S | N | S | N | S | N | S | N | S |
|---|---|---|---|---|---|---|---|---|---|
| 10 | 10 | 100 | 80 | 280 | 162 | 800 | 260 | 2800 | 338 |
| 15 | 14 | 110 | 86 | 290 | 165 | 850 | 265 | 3000 | 341 |
| 20 | 19 | 120 | 92 | 300 | 169 | 900 | 269 | 3500 | 346 |
| 25 | 24 | 130 | 97 | 320 | 175 | 950 | 274 | 4000 | 351 |
| 30 | 28 | 140 | 103 | 340 | 181 | 1000 | 278 | 4500 | 351 |
| 35 | 32 | 150 | 108 | 360 | 186 | 1100 | 285 | 5000 | 357 |
| 40 | 36 | 160 | 113 | 380 | 181 | 1200 | 291 | 6000 | 361 |
| 45 | 40 | 170 | 118 | 400 | 196 | 1300 | 297 | 7000 | 364 |
| 50 | 44 | 180 | 123 | 420 | 201 | 1400 | 302 | 8000 | 367 |
| 55 | 48 | 190 | 127 | 440 | 205 | 1500 | 306 | 9000 | 368 |
| 60 | 52 | 200 | 132 | 460 | 210 | 1600 | 310 | **10000** | **373** |
| 65 | 56 | 210 | 136 | 480 | 214 | 1700 | 313 | 15000 | 375 |
| 70 | 59 | 220 | 140 | 500 | 217 | 1800 | 317 | 20000 | 377 |
| 75 | 63 | 230 | 144 | 550 | 225 | 1900 | 320 | 30000 | 379 |
| 80 | 66 | 240 | 148 | 600 | 234 | 2000 | 322 | 40000 | 380 |
| 85 | 70 | 250 | 152 | 650 | 242 | 2200 | 327 | 50000 | 381 |
| 90 | 73 | 260 | 155 | 700 | 248 | 2400 | 331 | 75000 | 382 |
| 95 | 76 | 270 | 159 | 750 | 256 | 2600 | 335 | 100000 | 384 |

**Source: Krejcie & Morgan (1970)**

Note: "N" is Population Size "S" is Sample Size.