

**THE USE OF E-BOOKS FOR LEARNING AND RESEARCH BY POSTGRADUATE
STUDENTS IN GHANA: A STUDY OF THE UNIVERSITY OF GHANA AND THE
GHANA TECHNOLOGY UNIVERSITY COLLEGE**

BY

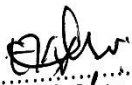


**THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN
PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF MPhil
INFORMATION STUDIES DEGREE.**

OCTOBER, 2020

DECLARATION

I, Ebenezer Kwadjo Pobi hereby declare that this thesis presented to the Department of Information Studies of the College of Education, University of Ghana is the outcome of a research undertaken on e-books awareness and usage for learning and research by postgraduate students in Ghana supervised by Dr. De-Graft Johnson Dei and Professor Harry Akussah of the department. The thesis is the result of my original research and has not been presented for another degree, either in whole or in part. All references cited have been duly acknowledged.


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DEDICATION

This work is dedicated to the Glory of God for His abundance of Grace and protection throughout my life. I also dedicate the study to my family: Mercy, Janet, Samuel, Isaac, Stephen, and Grace.

ACKNOWLEDGEMENT

I wish to take this opportunity to express my heartfelt appreciation and gratitude to the Almighty God for his protection, sustenance, and guidance. I am highly indebted to my supervisors Dr. De-Graft Johnson Dei and Professor Harry Akussah for stimulating my thoughts in this field of study and without their patience, criticisms, guidance, and suggestions, this work would never have been completed.

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ABSTRACT

Information and Communications Technology (ICT) has become a significant strategic area for libraries to provide quality service to meet their users' needs. In the bid to improve service delivery, the use of ICT is gradually replacing the manual way of providing service to library users. The ICT that is being used to provide services has proven to be a key to the success of most university libraries by providing new services such as e-books.

The study was undertaken to identify the awareness and use of e-books for learning and research by postgraduate students in Ghana. Key aims of the research were to discover the level of awareness of e-books, the level of use, factors that influence the utilization of e-books, benefits/importance of the use of e-books, perception and attitudes towards the use of e-books, challenges faced in the use of e-books by the postgraduate students from the University of Ghana (UG) and the Ghana Technology University College (GTUC).

Data were collected through the use of a questionnaire. Proportionate sampling was used to select 200 postgraduate students to participate in the study. Out of the 200 copies of the questionnaires administered, 150 were completed and returned translating into a 75% response rate. In general, the majority of 86.6% and 94.3% respectively of the students from both UG and GTUC, indicated awareness of the existence of e-books. Again, the majority of 87.6% and 75.5% from both UG and GTUC respectively actually used e-books for learning and research activities. Furthermore, most of the students used e-books for academic work. However, majority of 66% respondents from UG were not given any training in the use of the e-books, though the behavioural intention to use them showed a positive sign as against 64.2% from GTUC who were given training in the use of e-books. The study revealed that, the major challenge faced by most of the students, that is, 84.5% and 92.5% from both UG and GTUC

respectively when accessing the e-books was lack of stable internet. Notwithstanding the challenges the postgraduate students faced in the use of the e-books, they indicated that they found the utilization of e-books very convenient, easy to use and that e-books can be accessed 24/7 (twenty-four hours a day).

The research recommended that both the UG and the GTUC faculty should encourage and include e-books as reading texts for their students. Secondly, the challenge of low and unstable internet should be dealt with by the institutions by providing fast Wifi access at the campuses and to extend the bandwidth in order to increase fast access to the e-books.

LIST OF ABBREVIATIONS

C – TAM	Combined Technology Acceptance Model
EE	Effort Expectancy
FC	Facilitating Condition
GTUC	Ghana Technology University College
HTML	Hyper Text Markup Language
ICT	Information and Communication Technology
IDA	International Development Association
IPRO	Institute of Planning and Research Office
IT	Information Technology
JISC	Joint Information Steering Committee
MMU	Multi Media University
PDA	Personal Digital Assistant
PDF	Portable Digital Format
PE	Performance Expectancy
PEOU	Perceived Ease of Use
PG	Postgraduate
PLS	Partial Least Square
SI	Social Influence
TAM	Technology Acceptance Model
TPB	Theory of Planned Behaviour
TRA	Technology Readiness Assessment
UG	University of Ghana
UTAUT	Unified Theory of Acceptance and Use of Technology

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Academic libraries exist to provide services to support teaching, learning and research to satisfy the information needs of their patrons and stakeholders. The roles and contributions of academic libraries to educational and national development cannot be overemphasized when one considers the functions being performed by libraries within academic institutions. Due to this reason, most advanced countries pay much attention to the development of their academic library services (Adebamowo, 2011). The provision of services by the academic libraries has gradually shifted to electronic information with the introduction and use of information and communication technology (ICT).

More importantly, the rapid change in ICT over the past decades has had an influence on operations of tertiary institution's libraries in terms of how information is organized, retrieved and used. Essentially, the use of ICT has made electronic information resources popular among academic institutions due to providing easy access to a variety of information and saving of user's time. An example of these is offered by EBSCOhost. Reference databases (Biographies, Dictionaries, and Encyclopedias), numeric and statistical databases, e-images, e-audio visual resources among others are also offered by publishers such as Emerald and Sage (Johnson et al., 2012; Ankamah, 2017).

Aramide and Bello (2009): Okumus (2013): Ghuloum (2012) cited in Bhoi (2017) indicated that, ICT has enhanced the efficiency and effectiveness of both clientele and information professionals in terms of accessing information that has been digitized which are required for solving problems, investigating problems, arriving at a decision as well as coming out with new

ideas to support teaching and learning in, especially academic institutions. Gibson and Gibb (2011) noted that students can access the desired information without physically being in the library and this is seen as time, energy and cost-saving. They further stated that students can move through the text and possibly save a lot of items onto their cell phones and the hard disks of their computers.

The increased prevalence and technological improvements of an e-book according to Hindagolla (2014) have the capabilities to change and expand the delivery of the content. The growth of e-books collection may have an effect on libraries and some of these may have to do with libraries providing technological equipment, user education and training among others. Electronic books according to Hindagolla, (2014) are noted to have more importance for libraries and its users, and therefore, the development in e-book technology is an important factor in driving the development of e-book collections.

E-book as a term, according to the Oxford dictionary (2010) is defined as “electronic books. These are printed books that appear in electronic format or an electronic version of a printed book”. Doiron (2011; cited in Yaya, 2015) indicated that e-books can be originally printed books that had been digitized. E-books come in various formats such as MobiPocket, Adobe Acrobat Reader, Microsoft Reader, Palm Reader, EPUB, Plain Text and Hyper Text Markup Language (HTML). These formats have their specific Reader Software that enables an e-book to be read or viewed on a particular device. Some of the devices that an e-book could be read on are personal computers, personal digital assistant, Blackberries, Pocket Pcs, Tablets, Sony Readers, Mobile phones (such as iPad), and Kindle (from Amazon) (Vasileiou, Hartley, & Rowley, 2009: Wahl, 2018).

According to Rabi, Ojukwu, and Oladele (2016), e-books are mostly leased to libraries rather than an outright purchase as seen in the case of traditional textbooks. They listed three kinds of leases that libraries may fall on to build their e-book collections. These are:

Annual Access: In this case, the library pays an annual fee for one year access. This can be renewed each year.

Perpetual Access: The library pays a one-time fee and there may also be annual platform fees

Pay per Use: In this instance, the library is billed or debited from a prepaid account, based on the number of uses (that is titles viewed pages among others). There may also be annual platform fees.

The e-book phenomenon has the potential to impact the information behaviours of students, academics, and researchers in the future existence of libraries but that potential is yet to be realized. There is ample empirical evidence that the e-books have found favour in some parts of the world; and its usage and sales reported by publishers are encouraging, however, same cannot be said about other countries especially that of the developing countries like Africa. In the UK for example, according to the Joint Information Steering Committee (JISC) (2008b) in an e-book user survey, 60.1% out of the faculty population of 127 higher institutions were found to be utilizing an e-book for their scholarly work.

Dhanavandami, Esmatic and Nagarajan, (2012) undertook a study on the library processes that had been automated in the then three oldest University libraries in Ghana and found out that, the libraries in the three oldest Universities realized the need to have their systems automated, however, there was a problem of inadequacy of funds, and the Universities' authorities did not show any interest and there was lack of skilled members of staff to execute the task. In Ghana,

not much literature was found on the topic being studied, and it was against this background that the researcher proposed to carry out this study to investigate the use of e-books by postgraduate students in Ghana to establish the Ghanaian perspective for learning and research. The UG and the GTUC were chosen for the study because they both provide e-books services to their students and also were easily accessible to the researcher. Moreover, a preliminary investigation conducted by the researcher revealed that UG was found to be the largest and the oldest university among the public universities in Ghana, whereas GTUC was also found to be among the top private university colleges in Ghana and has a sizeable number of postgraduate students as compared to the others. It is, therefore, against this background that these two institutions were chosen for the study.

1.2 Statement of the Problem.

The use of e-books according to Wilson (2016) involves technologies which include file format that will permit text to be perused on various gadgets. The decision of the use of e-books can also be made by the library as to whether to offer e-book services or not, and this Wilson (2016) indicated can be done when the library involved decides on which e-book provider to use. The access of e-books is not restricted to geographical boundaries, they can be read anywhere without being physically present in the library, they save cost in the long run, and access is also not restricted to opening hours. Despite all these advantages, the e-book is bedevilled with problems. These hurdles comprise with poor client communication, log-in requirements, and digital rights management issues. Again, it is difficult to refer to multiple texts simultaneously when using the e-book, so researchers who may want to refer to multiple texts simultaneously might opt for printed text (Cassidy, Martinez, and Shen, 2012; Shelburne, 2009; Muir & Hawes, 2013). Also, the acceptance of the e-book as a learning resource presents immediate challenges

for academic libraries. “It poses a range of collection development issues associated with acquisition policies and processes; pricing, licensing models and arrangements, downloading, printing and other user restrictions, and cataloguing processes (Vasileiou, Hartley, & Rowley, 2009).”

Meanwhile, the ICT infiltration in Ghana has gradually, however, consistently gained significant grounds and has contributed immensely to the development of our educational system.

The researcher upon reviewing materials on e-books found out that, several investigations have been done on either the usage of traditional textbooks verses e-books in terms of their effects on academic performance, learning, age or gender among others. For instance, in Europe, Asia and America, studies on the usage of e-books have been extensively conducted in the various facets of their educational system. In Africa, and for that matter Ghana, not many studies were found on the awareness and usage of e-books by students. It appears there is a lack of focus on the existence and usage of e-books for learning and research by postgraduate students in Ghana. Regardless of the importance of e-books in the delivery of viable and proficient information for learning and research purposes, accessible documentation demonstrates that awareness and utilization of the e-books are not up to the level anticipated. Moreover, a preliminary investigation at the UG and the GTUC revealed that both universities spend a greater part of their annual budgets to acquire e-books. Even though e-books have been recognized as an ebb and flow pattern in education in Ghana, minimal experimental research exists on their awareness and usage as a learning resource by postgraduate students.

Therefore, the researcher investigated the level of awareness and usage of this service being provided by the libraries to its patrons and stakeholders, and also to fill the gap in the literature in

the understanding of the impact of the use of e-books among postgraduate students for learning and research in Ghana.

1.3 Purpose of the Study

The purpose of this study was to investigate the use of e-books for learning and research by postgraduate students in Ghana.

1.4 Objectives of the Study

The specific objectives are as follows:

1. To find out the level of awareness of e-books by postgraduate students
2. To determine the level of usage of e-books by postgraduate students
3. To determine factors influencing the use of e-books by postgraduate students
4. To find out the perception and attitudes towards the use of e-books
5. To ascertain the importance/benefits of the use of e-books
6. To find out the challenges postgraduate students of both universities face in the use of e-books.

1.5 Theoretical Framework

Kombo and Tromp (2006) indicated that a framework is a tool designed to help researchers to create awareness and understanding of a problem under examination. Venkatesh et al (2003, 2012) proposed a model called Unified Theory of Acceptance and Use of Technology (UTAUT) that explains how users will accept the use of innovation and this was seen as a comprehensive model that had been applied for technology acceptance which can be used for analysis based on the basic constructs. UTAUT model originated from earlier models of technology diffusion which has been applied in several similar works trying to find out how users accept new

technology. Ever since this model was established, it has become one of the most acceptable and widely used frameworks for technology acceptance. The four basic core constructs and two moderators of the UTAUT model were used to determine the Behavioural intentions (BI) of users of e-books and they are: “Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC), and the controllers or moderators adopted are gender and age”.

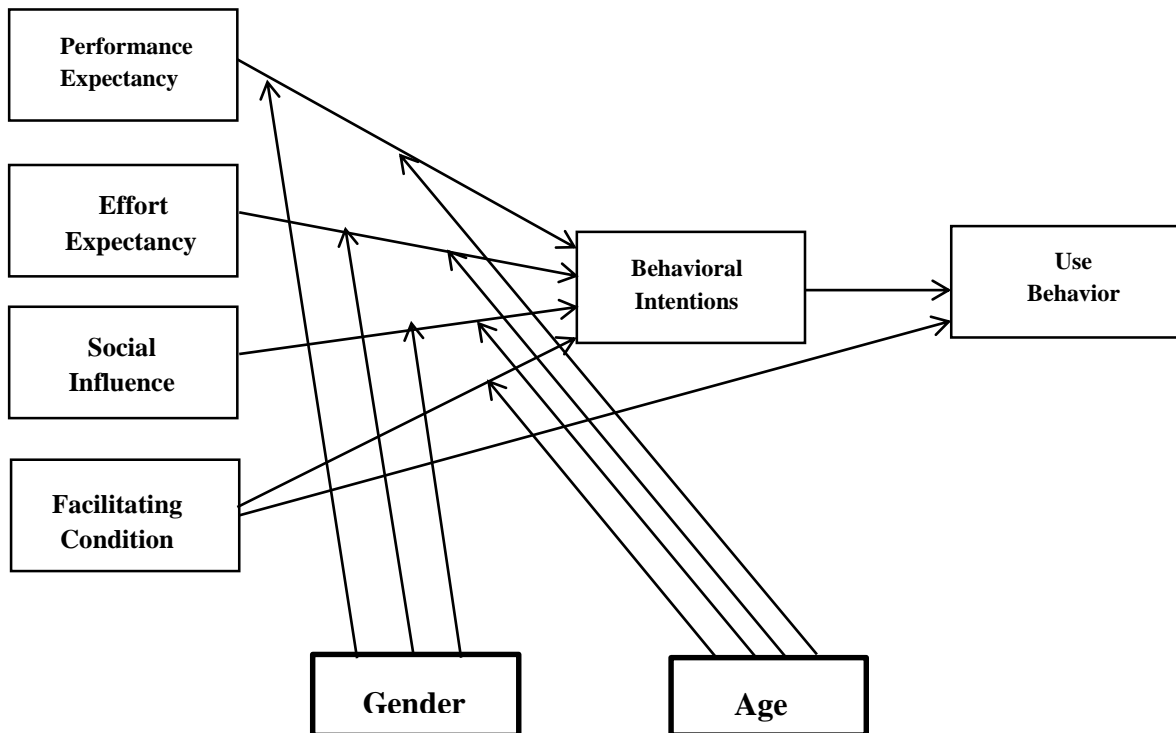
Venkatesh et al (2003) explained the four basic key constructs by defining them as follows:

- Performance Expectancy (PE) is “the degree to which a technology usage will benefit the user in executing certain activities. In other words, it is the level an individual thinks in using a particular tool it will enable him/her to gain knowledge”.
- Effort Expectancy (EE) is also defined as “a degree of ease of the use of a technology which translates to mean the ease of accessing an e-book”
- Social Influence (SI) is also defined as “the level to which an individual is persuaded to use a particular technology especially when his/her friends are also using it”, and
- Facilitating Conditions (FC) also refers to “the users’ anticipation of the technology and the aid that accompanies that technology which also means that the institution providing the service must be prepared to provide the technical support for the use of that technology.”

UTAUT’s performance expectancy, effort expectancy and social influence are perceived to be theories that can influence intention to use a technology whereas behavioural intention and facilitating conditions found out whether a particular technology would be used. Venkatesh et al. (2003, 2012) further indicated that experience, gender, age of the users and their intention to use technology are assumed variables that influence the four key constructs on a person’s intention to

use and the user behaviour. Several studies have shown that the importance of technology and ease of use have been considered as the major factors influencing an individual's acceptance of innovation (Venkatesh et al., 2003, 2012). The factors, Perceived Usefulness (PU), and Perceived Ease of Use (PEOU) as outlined by Davis et al. (1989) are almost similar to UTAUT's Performance Expectancy (PE) and Effort Expectancy (EE) respectively. There are four moderators which are experience, voluntariness, age and gender to the original UTAUT model. The researcher could not consider the moderating effects of experience and voluntariness in this study because the two variables seem to be almost similar, therefore, the researcher modified the original model of Venkatesh et al. (2012) (Figure 1, pg. 9). These UTAUT theories and models have intentions of usage of new technology that has been invented. The introduction of e-books at the UG and the GTUC was not too long ago so, the UTAUT model was considered applicable to help understand the awareness, usage and elements influencing the usage of e-books by postgraduate students in Ghana. The model designed by Venkatesh et al. (2012) was modified and used as a framework for the study and has been presented below.

Figure 1 Unified Theory of Acceptance and Use of Technology (UTAUT)



Source: Modified Venkatesh et al. (2012)

1.5.1 Justification for using UTAUT

UTAUT was found to be a comprehensive model that incorporates several explanatory variables to explain use behavior of technology such as e-books. Several researchers have used the theory of UTAUT as a framework for various studies globally in the area of embracing and use of technology like e-books. The modified UTAUT framework is composed of four significant variables, PE, EE, FC and SI as a direct determinant of behavioural intention to use or apply a technology such as e-books. The model was also seen to have been applied to study new technology in academic sectors such as e-books, e-learning and so on.

The PE as applied in the model was found to have direct influence on BI to use technology such as e-books. Studies conducted by the following researchers had also proved to support this

statement. (Yakubu & Dasuki, 2018; Decman, 2015; Lwoga & Komba, 2015). PE as defined by Davis (2003) and used in this research is the “degree to which an individual or group of people expected to gain from using a technology” of which e-book is of no exception. It is better to use as a variable to determine the postgraduate students’ behavioural intention to use e-books for learning and research activities.

EE in UTAUT was also adopted as a variable in the study. Yakubu & Dasuki (2018); Decman (2015); Lwoga & Komba (2015) reported in their studies that when EE was adopted in their studies, it proved to have an influence on BI in the adoption of a technology such as e-books. Again, Al-Azawei, Parslow and Lundqvist (2015) in their study also postulated that theories such as TAM and C-TAM-TPB found EE as a perceived ease of use that have actually determined the usage of a technology. Similarly, Moya, Nakalema and Nasamba (2017); Jabeen, Khan and Ahmad (2015) in their study found a greater support for direct link between EE and actual usage behavior of technology such as e-books. EE as defined by Davis (2003) is “the degree of ease associated with the use of a system”, it was therefore, vindicated as a significant determinant of BI to use e-books by postgraduate students’ for learning and research.

SI being a variable in UTAUT was described by Attuquayefio (2019) as a distinction pattern in several theories such as TRA, TPB and C-TAM-TPB, He further said that SI mentioned in the models was important in a willful setting. Again, Decman (2015), Lwoga & Komba (2015), Jawad & Hassan (2015) postulated that, even though SI anticipate BI, they found it not to be from required environment as proposed by the models and theories. Furthermore, Yau, Cheng and Ho (2015) in their studies lent support to the premises that SI has an influence on students’ gratification. SI as defined by Davis (2003) is “the degree to which an individual is affected by his/her peers or others leading them to accept or use an innovation such as e-books”. SI in

UTAUT was therefore used as a variable to identify the behavioural intention of postgraduate students' use of e-books for learning and research whether they were influenced by peers or have the willingness to use the innovation..

Facilitating Condition (FC) used in UTAUT, according to Attuquayefio, (2019) was assumed as a strong influenced on BI to use a technology. Jawad and Hassan (2015), Mtebe and Raisamo (2014) in their studies reported that FC effects on students' BI to use a technology such as e-books for learning and research. Similarly, Raman et al. (2014) posit that FC impacts both BI and real usage of technology. FC defined as “the degree to which an individual believes that an organization provides technical infrastructure to support the use of the system”. Kami and Julin (2015) also stated that students are contended with when they are provided with a congenial atmosphere for learning. Lee (2010) also indicated that when students' realized they are been supported in the use of a technology for learning and research, they show confident degree of gratification. Based on the aforementioned, FC was considered as a variable for the study of the existence and usage of e-books for learning and research by postgraduate students in Ghana.

The abovementioned independent variables are anticipated to influence postgraduate students' intention to use e-books for learning and research activities.

UTAUT, is, therefore, seen as a comprehensive model that can be used for analyses based on the basic constructs, that is PE, EE, SI and FC, and therefore the theory of UTAUT was adopted as a framework for the study on the use of e-books for learning and research by postgraduate students in Ghana.

1.6 Scope and Limitations of the Study

The scope of the study was the University of Ghana and the Ghana Technology University

College and it did not include undergraduate students which could have given a broader approach to the study. Also, the study was limited to the use of e-books despite the availability of other numerous electronic resources. One of the limitations of this study is that it did not cover all postgraduate students of the various universities in the country, it was restricted to two universities.

1.7 Significance of the Study

For Blaikie (2000), the significance of a study makes telling contributions;

- To the collection or accumulation of a new body of information or data,
- To knowledge about or understanding of an issue or problem and/or
- To policy and practice in a particular area.

He contends that all social research requires the use of resources both of the researcher's time and money hence, they must have a convincing justification for the need to carry out the research.

Certainly, funding agencies and policy makers will be interested in the contributions the research is going to make (Blaikie, 2000).

This study brought to light the numerous benefits of using e-books by postgraduate students

- It allows instant access to documents/materials and information
- With the use of e-books documents and information can be retrieved at anywhere, anytime
- It enables readers to find meanings and phrases of words by clicking on the word
- Current information can be retrieved for e-book
- Variety of information can be accessed at the same time
- Readers of e-books can share what they have with others

- E-books are portable that can be carried to anywhere

The following are the benefits the institutions stand to gain:

- The outcome of the study would provide library authorities with a depth of knowledge on issues bordering on the usage of e-books
- The results of this study would contribute to the existing body of knowledge in the area of e-books utilization.
- It would also be beneficial to researchers and scholars as it adds to the scholarly research and literature on e-book utilization.
- It would be expected to renew the attentiveness for additional research into the use of e-books by students.

1.8 Setting/Research Environment

The study was carried out at the University of Ghana (UG) and the Ghana Technology University College (GTUC). Both institutions are located in the Greater Accra Region.

The UG and the GTUC were chosen for the study based on these premises:

The resources available to the researcher could not be allowed for a study of many universities and also time available decided to select one public and one private for the study. The two universities chosen provide e-books/e-resources services to their students. Moreover, the Universities selected were reachable to the researcher, so data collection could be highly feasible. The UG was found to be the oldest public institution that has more graduate students. The GTUC on the other hand was also seen as one of the oldest private institution which has a number of postgraduate students.

1.8.1 The University of Ghana (UG)

The University of Ghana which is the premier university in the country is regarded as the oldest and largest university in Ghana. The University was founded by ordinance as the University College of the Gold Coast on the recommendation of the Asquith Commission on Higher Education in the British colonies in the year 1948 to provide and promote university education, learning and research. The University College after its establishment was affiliated to the College of the University of London.

In the 1960/1961 academic year, the College Council suggested to the government of Ghana to constitute a legislature to the University College to accord it with the authority to award its degree. The government then appointed an International Commission and upon their recommendations, the University of Ghana was set up by an Act of Parliament on October 1, 1961 (Act 79) with its mission to “develop world-class human resources to meet global development challenges”. The then President Dr. Kwame Nkrumah became the first Chancellor with Nana Kobina Nketsia IV as the Vice-Chancellor. The vision now of the University is to become “World-class research-intensive University” over the next decade. The mission of the University now is to “create an enabling environment that makes the University of Ghana increasingly relevant to national and global development through cutting-edge research as well as high-quality teaching and learning” with its values as “Integrity, Commitment, Respect, and Loyalty”.

Some of the courses offered by the University are Arts, Business, Physical and biological sciences, law, Agriculture, engineering sciences and nuclear and allied sciences. The University in 2014 came out with a ten-year strategic plan with its strategic priorities being “research, teaching and learning, internal stakeholders, gender and diversity, institutional processes,

financial performance, asset management, monitoring and evaluation, and external stakeholders”. The University now runs on the collegiate system and has four colleges namely; College of Humanities, College of Education, College of Basic and Applied Sciences and College of Health Sciences. The University currently operates from four campuses: Legon campus, Accra City Campus, Korle Bu campus and the Atomic Energy campus.

The University continues to approve new, as well as revising the existing programmes and courses to enrich their curriculum. The University as of now has a total population of 39,901 students made up of 33,703 undergraduate and 6,198 postgraduate students (University of Ghana Web page/Facts and Figures, 2017). The postgraduate students being studied were located at the Legon campus.

The University of Ghana is located within Ga East Metropolitan Area under Ayawaso West Wougou Constituency. The University is situated along the Accra to Aburi highway, about five minutes’ drive from the Ghana Standards Authority. The University occupies a total land area of 5 square miles which shares boundaries with Ghana Institute of Management and Public Administration (GIMPA) to the west and University of Professional Studies Accra to the east.

1.8.2 The Ghana Technology University College (GTUC)

The Ghana Technology University College was born out of Ghana Telecom Training Centre which was founded in the year 1948 by the erstwhile Post and Telecommunications Department as a Telecommunication Training Centre by the Colonial Administration. The aim for the establishment of the Centre was to train technical staff to operate and maintain telecommunication gadgets for the department. Twenty-one people initially were admitted to undergo a three-year training in Telephony. The Centre was the first of its kind and was, therefore, training technical men for the following institutions and organizations across the West

African Sub-region; Military, Civil Aviation, Police, Maritime, Meteorological Services among others. In 1989, the International Development Agency (IDA) signed a loan agreement for the expansion of its facilities and the improvement of human resources. This was done to upgrade the Centre to meet international standards.

In 1998, Ghana Telecom partnered Multimedia University (MMU) based in Malaysia, and a Diploma in Telecommunications Engineering was introduced to provide skilled hands as well as the national telecom industry workforce. The programme was a four-year one which ended in August, 2003.

In 2002, while the agreement signed with the MMU was underway, another management compact was also signed with Telenor in Norway. The preoccupation of the Telenor group was to upgrade the existing infrastructure and equipment of the Centre with an intention to elevate it to a University status. The name of the Centre was changed to Ghana Telecom University after the upgrading and an institutional accreditation was applied for and obtained in March, 2005 and on August 15, 2006, inaugurated by the then President, John Agyekum Kuffour with the mission “To provide quality global education to enable students to develop knowledge and skills to achieve their professional goals, improve the productivity of their organizations and provide leadership and service to their community” and the mission being “The preferred Centre of higher education in Ghana and the West Africa Sub-region”. The core values of the University are “integrity, academic freedom, innovation, and excellence with students’ first. The University has three faculties with international collaborators to run external programmes. The University is also affiliated to the Kwame Nkrumah University of Science and Technology.

The Ghana Technology University College (GTUC) was accredited to run postgraduate programmes in 2006, a year after its inception as a university. The first Master’s programme the

University introduced was a Masters in Information Communication Technology with nineteen students to start with. In 2008, Telecommunications Engineering and Management were introduced. The graduate school has at now, partnered with six international institutions and KNUST to run over twenty programmes. Some of the programmes are MSc Information Technology for Management, MSc Business Decision Management, MBA Logistics, MBA Petroleum Economics and Finance among others (Ghana Technology University College Handbook, n.d.). The location of the Ghana Technology University College main campus where the postgraduate students are located is at Tesano in the Ga West Metropolitan Area. It is situated along the Kwame Nkrumah Circle to Nsawam trunk road. It is about ten minutes' drive from the Nkrumah Circle. The University shares a boundary with the Ghana Police Training Academy.

1.9 Organization of Chapters

The study was organized into six main chapters.

The **first chapter** deals with the introduction. This includes the background to the study, statement of the problem, purpose, objectives, theoretical framework, scope/limitations, and significance, setting/research environment, and description of chapters.

Chapter two reviews existing relevant literature on specific areas relating to the use of e-books by postgraduate students for learning and research in Ghana.

Chapter three discusses the methodology used for the study and is made up of explorative design/strategy, selection of cases/study setting, and selection of subjects that is population and the sample size, data collection instrument, pretesting, presentation of data analysis, and ethical consideration.

Chapter four presents data analysis and presentation of findings.

Chapter five covers the deliberation of the key findings.

Chapter six is the last chapter and it contains a summary of the findings, conclusion and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The importance of literature review in any research cannot be overemphasized. Without it, the researcher may not gain a full understanding of the topic under study. Thus, the literature review brings out what has already been done on it, how it has been researched, and what the issues are (Hart, 1998; Cooper, 2010). Reviews according to Cooper (2010) help investigators to limit the scope of their inquiry. They convey the importance of studying a topic to readers and provide a framework for establishing the importance of the study as well as a benchmark for comparing the results of a study with other findings. “Literature review shares with the reader the results of other studies that are closely related to the study being reported” and above all, “literature review relates a study to the larger ongoing dialogue in the literature about a topic, filling in gaps and extending prior studies (Cooper, 2010)”. The integrated literature review was adopted where evaluations are mainly compendious of past investigations (Creswell, 2003; Cooper, 2010).

2.2 Conventional Books

The effort to make the society a better place to live in and to make human activities a lot easier means that society continues to witness unprecedented changes and evolution of technology over the several years of man’s existence of which knowledge and the information environment is of no exception. According to Unwin and Unwin, editors of Encyclopedia Britannica (2016), the preservation of knowledge and recording of information have gone through several phases until printing was invented by Gutenberg to print books. Even dating back to the medieval period, knowledge or information was recorded on all kinds of materials such as stones, leaves of trees,

and so on. The paper book has been with the academic society for all this while despite its bulky nature and the fact that information centres always require a lot of space for its storage, nevertheless, it continues to be a relevant source of information. Martin-Beltran et al. (2017) undertook a study on the use of e-book verses print book and reported that, students' studied still prefer using print book to e-book. Again, Crum (2015) took a study on "E-books sorry why print is better" and reported that the students' studied opted for print book of humanities even when the electronic version is available. In the study, 78% of the participants, Crum said preferred print books to digital books. Similarly, Saleem (2011) sampled 1,040 university students' for a study on "Between e-books and printed books during 2009-2010 and reported that majority of the participants preferred reading print books. The availability and accessibility of numerous and varied information resources especially the paperless resources (electronic materials) have threatened the extinction of the paper book but it remains a major source of information in academia especially among many students (Buzetto-More, Sweat-Guy, & Elobaid, 2007; McGowan, Stephens, & West, 2009; Shepherd, Grace, & Koch, 2008; Woody, Daniel and Baker, 2010).

UNESCO stated that any publication with 49 or more pages can be referred to as a book. But this definition is rather too simplistic and may not cover a lot of publications which are seen as books. To be safe, a book is seen as having pages and cover. The conventional paper book comes in different varieties such as textbooks, manuals, and handbooks and they contain different kinds of information as well. Pew Research Center (2016) surveyed 1,520 American Adults on reading habits in 2016 and reported that, 73% of the Americans who participated in the study indicated reading at least one book in the previous year. This finding, the report said was close to that of 2012 which stood at 74%. Pew Research Center further indicated that, when similar study was

carried out in 2011, 79% of the participants had read a print book. Books are a major information source for academic work either in the lecture room or in the research field. Print books are sometimes the first point to consult in carrying out any academic activity. Be it teaching, learning or research, for that matter print books, have been the mainstream of information sources until technology kicked in. National Association of College Stores (NACS) (2010) undertook a study on the usage of e-textbook and reported that, above 600 students' studied, 87% had not purchased e-books for the past 6 months. NACS further stated that, 73% of the participants indicated their preference to print book over e-book. Millar (2015) in a study at hospitality management class showed 57.4% of the participants selecting print book for their class work. Whiles 25% chose e-books and the remaining 18%, Millar said were in a fix. It is therefore, no doubt that a lot of students still prefer the paper book to other information sources. Woody, Daniel, & Baker (2010) indicated that the recent advancement in technology has led to the digitization of some books which are either out of publication or those which are considered very vital by academics and publishers. There is also the publication of new titles in alternative e-book format altogether.

2.2.1 Evolution of E-books

The e-book or electronic text has been around since the early 1970s. The first major development in the field of the e-books can be traced to the Project Gutenberg during the 1970s. This project saw the digitization of books which were made available freely on the Internet especially books whose copyright had expired. At this time, computers were the only available platform to be used to read these e-books in plain text (Kossey & Brown, 2011). "The Project Gutenberg was founded in 1971 by Michael Hart at the University of Illinois. The project currently has over 30,000 e-books available free of charge where readers can download the text in a variety of

formats” subject to the device the reader is using; whether it is a PC, an e-book reader or even a cell phone.

In 1976, the Oxford Text Archive also began to dispense free electronic texts to the scholarly community in the UK. This was founded by Lou Burnard. This academic resource provides more than 25,000 resources in over 25 different languages and its holdings include electronic editions of works by individual authors, standard reference works such as the Bible, and both monolingual and bilingual dictionaries (Vasileiou, Hartley, & Rowley, 2009).

Earlier modes of e-books had existed in varying forms even before the 1970s. Students and educators could freely download novels, fiction, and non-fiction as well as poetry quotations from several websites. The initial e-books were “text-based in HTML and later Portable Digital Format (PDF) with some early e-publishing formats. The texts could be opened in a notebook or WordPad (i.e. if the text only) and in MS Word and Browsers (i.e. if HTML). PDF could be opened in programmes such as Adobe Reader, Foxit Reader and many others”. Fast forward into the modern information era, some e-books are also made available on CD-ROMS readable on a CD-ROM drive. The advent of e-readers, Amazon Kindle, Sony e-readers, smartphones, and tablets all with the in-built capabilities to read e-books completely revolutionized the e-book industry (Boachie, 2016). The widespread of the utilization of the internet during the late 1980s made the book vendors (publishers and aggregators) realized the need of possibly delivering the content in electronic format (Vasileiou, Hartley, & Rowley, 2009).

On the other hand, libraries begun to turn to e-book services due to budget cuts, limited shelving space, high cost of new buildings and other resources. According to Boachie (2016) what is compelling libraries to turn to e-books or virtual libraries is the rising cost of repairs or replacement of printed books, the cost of inter-library loans, the increasing demand for electronic

resources by users, and the need to support distance education or distributed learners.

In addition, with the availability of portable devices, people quickly realized that they could read not only from their computers but also they could read their preferred texts on devices such as embedded course materials on tablets, downloaded course textbooks on iPad, Amazon Kindle, Sony E-readers, and on many other handheld devices and these modes of access are creating convenience as students have realized that they can learn wherever they may be (Wahl, 2018).

2.2.2 E-books

Recent technological developments have inundated the library world with varied and many sources and formats of information resources. Prominent among them are electronic journals and databases, and now, the e-book. Ever since e-books were introduced, libraries quickly recognized the importance of e-books and made them part of their collection development policies (Payare, 2014). Since every information centre has now grown accustomed to providing and

Communicating information electronically, the least students expect is to be able to access basic course materials and course books in the same way as they can access almost other information resources they need electronically. According to Wahl (2018) “an e-book is an electronic forms of a book, simply, a print book made available in an electronic format that is non-editable that can be read on a computer screen or a handheld device”. Hence, “e-books are considered as software objects as well as physical objects since the reader needs an electronic device to be able to read the software” aspect of it (Wahl, 2018). Gardiner and Mutso (2010) also defined an e-book as a book-length publication in digital form, consisting of text, images, or both, readable on computer or any other electronic devices. If an e-book is understood as a software object, it simply stands to reason that an “e-book is simply an electronic text that serves the same purpose as a conventional printed book” and may even go further to share some of the features of a

printed book such as the look and the feel of a printed book (Boachie, 2016). The definition of an e-book is woven around its main features such as the media, content/file, format, and delivery (Vasileiou, Hartley, & Rowley, 2009). The availability and accessibility of e-books are considered as a “radical innovation” in education in particular since it has an impact on the traditional printed book for its confident inspirational for students studying and its supportive role in the electronic platform of a classroom and the university (Martinez-Estrada & Conaway, 2012).

E-books are produced in a variety of formats ranging from the very basic text files to well-structured purpose-built files that make use of emerging standards such as EPUB, and Adobe PDF standards (JISC Digital Media, 2014). The JISC e-book user survey revealed that e-books are the central elements of the information experience of the academic population, including staff, undergraduate and post-graduate students (JISC, 2008a). A survey report on e-books and e-learning in African countries by Allen and Kaddu (2014) revealed the sources of e-books to include, open access, library subscription, websites, Google on-line books, bookstores such as Amazon, iTunes, and Courtesy of World Readers. Some e-books are available for free and can easily be downloaded onto one's desktop and others are available by subscription. Besides e-books' popularity, reading e-books is steadily increasing. Research in the US in 2014 discovered that e-book reading was increasing. It reported that since July 2014, 28% of adults read an e-book compared to 23% in 2013. The report further disclosed that this result was attributable to the fact that 50% of Americans had access to dedicated devices, either an e-reader or a tablet compared to 30% owning a device at the end of 2013 (Pew Research Center, 2014). The World Reader Literacy Ledger reported in 2014 that most people in Africa and Asia spent 1,028,109 hours reading on mobile phones and this tells a lot about people's addictiveness to screen reading

in the information age. It is therefore not far-fetched that some scholars have begun to predict that the print book is falling out of favour in academic life with electronic journals, databases, and electronic course materials now becoming the main information resources in most universities (Atkins, 2014). Some researchers have also contended that they and their students turn to cite resources that are convenient and easily accessible and since e-books meet these criteria, they are likely to use and cite e-books more (Fyfe, 2014).

Since reading is considered as one of the basic activities of education, e-books are effective resources in meeting the reading and learning needs of students. They are portable, as they can be carried anywhere and accessible as well thereby removing the barrier of limited access, in other words, e-books are available to its users 24/7. E-books can support in-class information retrieval by broadening the range of learning resources, and libraries can house many titles without physical space considerations (JISC, 2014). The provision of e-books and its use in libraries continue to grow rapidly. For example, at the University of Leicester, the library acquired 1,086 e-books in 2008/2009 academic year and this figure shot up to 406,576 in the 2012/2013 academic year (Fyfe, 2014).

The e-book has come to stay to the extent that there is a proliferation of hand-held devices everywhere, even in the poorest countries in the world where the majority of the people owned smartphones and other handheld technological gadgets, e-books could be embedded onto these hand-held devices to make access and usage much easier. With the digitization of text and the increased availability of the Internet, the e-books have “come of age” as an acceptable format for publishers, readers, and librarians in the library and education sector (Scott, 2014).

2.2.3 E-books in Ghana

It is important to note that the e-book is largely a new phenomenon in the country, especially

among publishers in Ghana since the attainment of independence. The publishing industry to a large extent is still paper-based. But with the turn of the 21st century where e-books and e-publishing are gaining grounds in the developed world and most parts of developing countries, Ghanaian publishing houses are beginning to take a key interest in e-publishing and production of e-books. A recent initiative in the field of e-book and e-learning aimed at introducing e-books on the Ghanaian market got a positive response from Ghanaian publishers. This was a World reader project conducted by Zell (2013) on a pilot basis from 2010 to 2011. The aim was to give Ghanaian public school students access to reading books since the majority of basic cycle students do not have access to basic reading materials through e-reader technology using Amazon Kindles. This pilot project had ten indigenous Ghanaian publishers participating in the project that saw a range of their books digitized and made available on the Kindles, mostly books for children and young people, and a small number of textbooks as well. The results of the project showed that the use of e-readers improved the children's reading (Zell, 2013).

2.3 Usage of e-books

It is worth noting that this information age significantly offers an array of information sources which faculty, students and researchers have the luxury to choose from and determine which particular source is convenient to be used for their teaching, learning, and research. It is not for nothing that the print book is largely still a preferred choice of information source among academics and students; it is because the print book has been with the academic society for hundreds of years and students have grown accustomed to it (Grace, 2011). Hence, some researchers have argued that the e-book is still in its infancy stage and that explains why its use in some parts of the world is still low. But others are of the view that e-books have arrived in institutions of higher learning (Martinez-Estrada & Conaway, 2012). Most e-book databases

have made their way into libraries and many libraries have embraced this new technology as they have embraced online journals and electronic databases. Consequently, e-books have become so prevalent that some publishers now offer e-book alternatives for most of their textbooks and some students are therefore beginning to replace their traditional textbooks with e-books (Woody, Daniel & Baker, 2010). There are even fears that e-books are affecting traditional publishing companies and are “Rewriting the rules of the book industry, upending the established players which have dominated for decades” (Trachtenberg, 2010b). Trachtenberg further states that the e-book fever has changed the business plans of textbook publishers and in some cases, publishers have seen the rapid decline in sales of the physical book and this has forced publishers to begin to rewrite their business plans. The advent of technology with easy access to portable devices and availability of the Internet has led to an increase in the use and widespread popularity of e-books in the educational setting. There are quite some studies carried out on the use of e-books in institutions of higher learning across the world.

In the UK, Nicholas et al. (2008) conducted one of the most comprehensive e-book use surveys involving 22,437 subjects. The results of the study showed that e-book penetration in the UK was very strong. The results revealed that 61.8% of the surveyed subjects who were students were already using e-books in their scholarly work. The authors opined further that the e-book revolution had already happened.

Shelburne (2009) did a survey among students, faculty and staff on awareness, usage or lack thereof, and opinions about e-books in the University of Illinois at Urbana-Champaign. Shelburne received 1,547 responses, of which 57% of the respondents being overall reportedly had used e-books. Forty-one percent (41% overall) of the respondents had not used e-books with the reason that they did not know about the availability of the e-books in their library, a further

15% stated that they did not like reading from the screen, 10% of the respondents said they did not know how to find e-books, and a negligible 7% said they had preference for printed books. From the results of this study, Shelburne (2009) contended that users considered e-books to be better than print books in terms of space and storage, accessibility 24/7, the currency of information, and availability from any location.

At the University of Portsmouth, a survey on the use of e-books among students showed that in 2009, 40% of male students from the Humanities and Social Science (HSS) and 42% of female students from the HSS had used e-books for every assignment and in 2014 these figures had risen to 74% and 70% respectively (Worden, 2014). Worden further indicated that catalogued e-books have a higher possibility of being discovered. Available literature also shows e-books now becoming widely accepted as students also embedded it in their course work. For instance, the University of Leicester Students Union Annual Report for 2014 decided to pose two inquiries on learning process. The first was "How much of your reading is available online?" Sixty-five percent (65%) of the 769 respondents showed that most or the entirety of their learning was accessible electronically. The report, subsequently, gathered that a large portion of this, at student's level, would be books and book sections. The second question asked was "How useful would each of the following resources be to your learning?" E-books topped the list which included lecture notes, journal subscriptions, more physical books in the library and social learning space. Sixty percent (60%) of the respondents deemed e-books to be "very useful" to their learning as against 44% of the respondents considering physical books in the library to be "very useful" to their learning. The report further showed that academics at Leicester University confirmed that they and their students read and cited more titles if the content was easily accessible. E-books enabled students to access key texts via mobile devices and this had

significantly enhanced their education (University of Leicester Students Union Annual Report for 2014).

In another study conducted by Folb, Wessel and Czechowski (2011) to assess factors affecting the use of e-books involving patron groups of the Health Science Library System at the University of Pittsburgh, the results indicated that 55.4% of the respondents had used e-books. Romero-Otero, Fernandez and Gimenez (2013), Letchumanan (2010) carried out a qualitative study at a different period involving faculty members, undergraduates as well as graduate students on where they go for information and observed that e-books were used for research, teaching and learning. Arthur (2001, cited in Embong et al., 2012) studied online Internet users and posits that those who frequent the Internet rated e-books positively. Furthermore, the use of e-books has served to improve reading habits among young students, so e-books have been adopted as one of the strategies to instill reading culture into young children. This is corroborated by Doiron (2011) who affirms that many public libraries have embraced the use of e-books and e-readers to promote reading, keep up with client demands, and to address specific needs of young readers. In another development, Cohen (2019) studied e-books usage of college libraries and reported that most academic libraries all over the world were experiencing a decline in the usage of e-books.

However, it appears the popularity of e-books in most developed parts of the world is not the same as in Africa. According to Kojie (2017) despite the widespread usage of e-books, the utilization of e-books has not gained grounds in Africa due to factors such as finance, technical know-how, and infrastructure. Besides, the African book industry is still dominated by the textbook which largely focuses on the curriculum for the school market. He states further that African publishers are lagging behind in the digital revolution and that the African digital

publishing is still at its infancy stage. Nevertheless, e-books have made some good in-roads in some African countries such as Egypt, Kenya, Nigeria, South Africa, and Ghana. There have been e-book experiments in most African countries in a bid to replace print books with e-books especially in primary and secondary schools to make information more accessible to bridge the information gap between the “haves and have nots” (Kojie, 2017). For instance, the World Reader initiative in Ghana seems to be an indication of the vision and commitment to building an e-book infrastructure and an e-book market. Kojie (2017) further observed that the fact that Sub-Saharan Africa has the fastest Mobile penetration with the global figure of 18% per annum where more people have access to smartphones through which they access the Internet also has implications for the development of e-books in Africa. This particular view is further re-enforced by the teaming and growing youth population in most African countries where for example, Kojie (2017) reports that about 63% of the Nigerian population is made up of the youth. In the view of this, changes that are taking place are not only restricted to the transition of the carrier from paper to screen but also in ways in which content is consumed even by distance learners. Maepa (2013) reviewed the proportion of library budgets spent on e-books in 37 libraries in Africa and observed that almost half of the libraries had no specific budget for e-books while more than 7% of the libraries allocated more than 5% of their budgets to e-books. He observed further that although 49% of the libraries had less than 1000 e-book titles, a sizable percentage (11%) had over 3,000 or more e-book titles. This, Maepa (2013) posits, is a clear indication of African libraries becoming more conscious of the use of e-books and the will to purchase them. The e-book cannot result in the extinction of the print book rather both will be used side by side to complement each other. Also, more awareness and promotion need to be done for the e-books to wholly pick up as one of the reliable sources of information for academic purposes.

2.4 Awareness of e-books

As technology develops at a faster rate where electronic devices have become widespread, so too are e-books and e-readers which are starting to establish themselves as some of the convenient ways of accessing information. Awareness according to Shelburne (2009) is defined as “the state of ability to perceive, feel, or be conscious of events, sensory patterns or objects”. He further posits that when the availability of e-books is not made known to users in some libraries, it results in low usage. It is important to stress how marketing has become part and parcel of the field of librarianship. Librarians are now required in the 21st century to market their products to promote and create awareness about their resources since there is a wide range of resources available for patrons. To a large extent, this may be the reason why the current librarian is seen as an information navigator instead of a guardian of library resources. This point perfectly dovetails into the view of Bentil (2011) who states that when patrons of the library are made aware of certain library services, it results into patronizing and utilizing those services which otherwise would not have been the case if clients or the target group were not made aware of them. Although, it is also important to note that awareness about information resources such as e-books does not in any way guarantee usage, but on another side of the coin, it is difficult if not impossible for a patron to use any library resource if the patron is not made aware of the availability of such a resource.

A study by Lamb (2012) to investigate academics' perception, uptake, and use of e-books at the University of Waikato, New Zealand, revealed that academics at the University lacked “awareness, competency, and confidence towards the many aspects of the e-book environment” and that generally, academics were not making full use of the University's e-book collection. This phenomenon is interpreted as underutilization of the e-books collection and if such a trend

is allowed to continue it could lead to a waste of resources. However, Lamb's (2012) study did show whether the majority of academics were aware of the library's e-book collection. He concluded that there was a need for improved technology, access, and supply of e-books and increased patron education to raise awareness of the e-books offered. Corlett-Rivera and Hackman (2014) on the other hand found out that many users at the University of Maryland also lacked awareness of the e-books collection and they, therefore, recommended further patron education to be carried out to raise awareness among users.

A study by Scullin (2015) "on attitudes towards and use of e-books at the University of Canterbury", revealed an overwhelming majority (91.82%) out of the 611 respondents were aware that the university's library provides access to e-books. Interestingly, half of the respondents of the 91.82% who were aware of the library's e-book collection reportedly had utilized an e-book a couple of times while 27.58% had used an e-book often and only 14.06% had never used an e-book. In Nairobi, a study by Mwanzu (2014) showed that in the United States International University- Africa (USIU-A), awareness strategies of the availability of e-books among library users included the following: library staff frequently creating awareness about e-books, the Library's OPAC having links that frequently redirect users to e-books in the course of students undertaking their assignments, term papers, and research papers thus they eventually become aware of the library's e-book collection. Lecturers also create e-book awareness by including some relevant e-book titles in their reading lists, and above all, Mwanzu (2014) observed further that the library uses brochures, stickers, and flyers to create awareness about the availability of the (USIU-A) Library's e-book collection. Based on the above strategies, he, therefore, found out that the majority of the respondents were aware of the availability of e-books in the USIU-A Library. A study carried out by Clarke (2012) revealed that the majority of

library users did not know whether their libraries provide e-books or not. He, therefore, asserts that this is a clear indication that there is a lack of awareness about the availability of different resources offered by libraries. Similarly, Romero-Otero, Fernandez and Gimenez (2013) undertook a study on use, acceptance and expectations for the e-book and reported that 66.7% of the postgraduate students lack consciousness of the existence of e-book. In the view of Bottger (2010), lecturers have a big role to play in the creation of e-book awareness. He opined that when faculty members found accessing and using e-books comfortable, there is a likelihood that they will recommend to their students to use e-books as their further readings in doing assignments, and other academic work. Taylor (2012) in his study observed that library users would be more aware of e-book collections if they are included in library catalogues. The study further revealed that available catalogues lack sufficient directives to the locations of e-books. Taylor (2012) therefore asserts that this phenomenon tends to cause library users to miss some relevant e-book titles while using the library catalogue. For Wilson (2011), if libraries want to maximize their e-book awareness, they must integrate their e-book collection into the library catalogue so that when users are searching for a book, they can use a single and the same platform or interface for both print books and e-books.

Croft (2010) also found out that the basic barrier affecting e-book usage was lack of awareness. He observed further in his study that e-books were not widely advertised resulting in the low level of usage. Folb, Wessel and Czechowski (2011) reported that although there was little promotion of e-books, 65.5% of the surveyed subjects claimed to be aware of the library's e-book collection. Bankole (2012) studied the use of Internet services and Fiankor and Akussah (2012) also did a study on information use and policy decision making and they reported that low awareness of resources by the library clientele has led to constrained access to important and

dependable information by clients in settling on a choice in their research. Akuffo and Budu (2019) reported in their study on the use of electronic resources by students in a premier postgraduate theological university that the postgraduate students surveyed were aware and using the e-resources. They further stated that the students had benefited on the use of the e-resources but lacked training skills in the use of these resources. Awareness creation is needed to enhance users knowledge of any library's resources and the e-book which is a new technology is no exception. Awareness has a bearing on the usability of every library's resources so all efforts must be geared towards creating awareness of a particular library's resources. Sometimes it has to be a continuous process to achieve the desired results.

2.5 Importance of using e-books

The importance, advantages or benefits of e-books have been explicitly advocated by many researchers. Wahl (2018) listed “convenience, economy, portability and materials being up to date” as some of the advantages associated with e-books. Wahl (2018) further noted that students can build their personalized digital libraries with the new e-book technology since they can easily download relevant course textbooks onto their handheld electronic devices such as e-readers, as well as smartphones. Young (2010) also listed the following advantages of using e-books: instant access to more reading time (that is one can still read during travel), remote access, searchable readings, potential links to allied multimedia resources, portable resources (that is handheld electronic device can hold many books), and optimizing reading time (that is one can still read during travelling).

There is no doubt that an interesting part of the e-books phenomenon is that it offers a new type of user experience for reading books that provide potential benefits such as new ways to access a book and flexible choices of delivery. The potential for interactivity (for example, hyperlinking)

and the inclusion of multimedia is where e-books differ from traditional print books and they can have the advantage to support learning and teaching (Payare, 2014). He explains further that the e-book is structured like a web page that potentially provides the reader with additional features to enable fast navigation through hyperlinking, annotation, and keywords searching, unlike the print book which is linear providing the only content list, content, and an index.

Yaya (2015) in his study on the prospects and challenges of e-books in school media services in Nigeria identified the following perceived benefits of introducing e-books into school media services:

1. Accessibility of information – With e-books, library patrons can access information at any time, 24/7 and anywhere without any restrictions, unlike the traditional physical library whose accessibility is limited to particular opening hours and with some conditions attached for admittance into the library building (Adeyanju, Achonna, & Yaya, 2012; Yaya, 2015).
2. Time-Saving agent – Time-saving is one of the basic five laws in librarianship that was postulated by the eminent mathematician and librarian, S.R. Ranganathan (1963 cited in Yaya & Adeyokun, 2011), and it states “save the time of the reader”. This means that time is of the essence and a scarce commodity to the library user, so the reader is happy to discover and access any required material within the shortest possible time. With e-books in the library catalogue and with a click of a button, the reader is served within the shortest possible time.
3. Enhancing reading habits – There is a popular saying that “if you want to hide any vital information from an individual keeps it in a book but if you want the individual to know such vital information, place such information in the screen format that digitizes it”. This

is especially true to the extent that the e-book technology is considered as tools of choice for researchers and students, particularly those who belong to the so-called digital generation who can access and browse contents at any moment from their laptops (Posigha, 2012; Scullin, 2015).

4. Cost-effectiveness – Although the initial cost of procuring and installing an e-book infrastructure might be high but in the long run, the cost is relatively low as compared to the amount spent in acquiring and re-stocking the library with new and current materials each year.
5. Space conservation – Inadequate space has been the bane of library growth and expansion. Libraries all over the world need space to be able to grow and expand in terms of adding more materials to the existing ones and to add on other relevant services. As Ranganathan (1963, cited in Yaya & Adeyokun, 2011 and Yaya, 2015) puts it, “a library is a growing organism”. This means that growth in collection development has been the hallmark of any library. Periodically, a library has to acquire more relevant and current materials or resources to satisfy the ever- changing needs of its users and the periodic acquisition of these materials or resources would eventually need space and therefore putting the available space under pressure. But with e-books little or no additional space would be required to store additional titles. Once, the e-book infrastructure is set up, it takes a longer time to add additional storage devices. So, when there is no space left in the library, digitization or acquisition of e-books is the best solution (Yaya, & Adeyokun, 2011; Yaya, 2015).
6. Portability – An e-book can be embedded into any electronic device and carried anywhere. A reader can have a whole personal library in the pocket due to the benefits of

e-books compared to holding two or three textbooks in the hand going to the classroom. It creates a lot of inconvenience to the reader and it is not easy to carry these books over a long distance, unlike the e-book.

Fyfe (2014) also outlined the following benefits of e-books thus:

- e-books enable libraries to solve the problem of high demand on particularly limited titles. One copy of an e-book title can serve several thousands of users at the same time as compared to waiting for a single print copy to be returned for another user
- e-books make access to books or titles anytime, anywhere possible and this helps to meet students' expectations and to assist those who have to study in the midst of personal commitments
- e-books can also be embedded in online programmes or made available through a virtual learning environment; students are able to access materials without Internet connection; in fact, they can travel with their course textbooks embedded in their handheld devices where they can study at any time, anywhere as compared to carrying print books which may be unrealistic.

Again, Fyfe (2014) agrees that print and e-books will co-exist for a long time into the future, but it is becoming evident that a continued move towards e-books will, over time, permit the reduction of prime space allocated to printed books, allowing significant quantities of space to be released for other library purposes, including format and social learning space. He stated further that the move is already underway promising to deliver significant financial and academic benefits to institutions. E-books are on the cusp of becoming the mainstream tools in learning, teaching and research. They offer significant opportunities to enhance the richness and effectiveness of education across all spheres and to deliver advantages to institutions.

In the view of Vasileious, Hartley and Rowley (2012), many studies have shown how e-books have become a central element of the information experience among the academic population, including staff, undergraduates, and post-graduate students. Corlett-Rivera and Hackman (2014) also noted that most universities are faced with space constraints and other factors that create pressure for them to purchase proportions of their collections in e-book format instead of print format. (Widdersheim, 2014; Scullin, 2015) stated that *“e-lending is attractive for libraries because it enhances information access”* and that *“by providing access to e-content and mobile technology to patrons, libraries will exist beyond their physical walls, outside scheduled hours, and offer patron opportunities they may not have with analogue libraries”*. Link (2012) and Scullin (2015) views e-book *“as a way to keep up with the demands of technology-savvy patrons while conserving or even reducing shelf usage and thereby re-purposing valuable library space for group study or Computer labs.”* Doering et al. (2012) posit that e-textbooks are mostly less costly than their printed counterparts, and that one does not need much storage space for e-textbooks, unlike printed books. They also stated further that e-textbooks can be revised or updated and distributed quicker than paper books.

In another study on user acceptance of the e-book in Nairobi, Kenya, Mwanzu (2014) found out that students prefer e-books to paper books because some e-book databases have functionalities such as reference citing and that e-books are much faster to browse through the pages than a printed book. Moreover, their multiple function, simultaneous access, and flexible search even make the e-book more appealing to students. E-books can be accessed remotely and they are also known for their friendly interface, including the graphical ability to view video links, and pictures. The zooming and magnifying features of the e-books attract students to turn more to them. The importance of the use of e-books cannot be overemphasized and a lot of researchers

are of the view that the e-book has come to stay.

2.6 Perception and attitude towards the use of e-books

Mulholland (2012) writing on the impact and perception of e-books on academic staff in Further Education College in Northern Ireland found that the academic staff he studied, though, welcomed e-books as a tool for their academic work, the lack of awareness of important titles and the staff not having the necessary experience hurt the use of e-books for teaching and learning. Mulholland's study further states that 40% of the academic staff who had continuously been at the post for 5 years had not used the e-books. In the same vein, Pant and Jindal (2013) and Walters (2013abc) reported that electronic journals were found to be more popular in Ireland than the e-books due to their ease of use and access for their research work. Similarly, Nicholas and Lewis (2010) stated in their study that, it was difficult to entice faculty of Salve Regina University in Newport, the USA to use e-textbooks. Pant and Jindal (2013) in their study at the University of Delhi noted that, 45% of the faculty had used e-books as compared to 76% of students who had used e-books. The JISC (2012) survey revealed that some researchers have started debating whether e-books can replace printed books and the trend shows information resources centres trying to expand their e-books acquisition over the past few years. The JISC's study further noted that "core text e-books can be conveniently used alongside the printed book". However, (Daniel and Woody 2013; Pant and Jindal 2013; Walters, 2013b; Walton, 2013) posit that, there exists clear evidence that printed books remain popular than e-books with clients for obvious reasons, whereas other users prefer using e-books for searches, information as well as finding them convenient to use, as printed books are perceived to be a preferred source for extended reading (Cassidy et al., 2012; JISC, 2012; Walters, 2013b; Walton, 2013).

The availability of online searchability has also been noted as a good feature that e-books

provide for users in their studies (ebrary, 2012; Lenares et al., 2013; Muir and Hawes, 2013; Nicholas et.al., 2008; Walters, 2013b). Though catalogues continue to provide access points to the materials in the libraries, information professionals need to adopt effective strategies to promote their e-book collections (Cassidy et al., 2012; Walters, 2013a) and this can be done through the reviving of their outreach programmes and being proactive in their work by focusing on the faculty for more training activities (Vasileiou, Hartley and Rowley, 2012). What this means is that, when the information professionals give more education to the faculty, they will in turn, recommend and encourage the use of e-books to their students.

2.7 Factors that Influence the use of e-books

The use of e-books is influenced by several factors either positively or negatively. The following under-listed are some of the factors militating against the use of e-books:

2.7.1 Awareness

Several studies have shown that awareness about the availability of a library resource equally influences the use of that resource. As Croft (2010) notes in his study, the basic barrier inhibiting e-book usage was lack of awareness. He found that e-books were not widely advertised, therefore resulting in a low level of usage. Awareness is a major driving force for the use of any library resource. When users are aware of the availability of a particular library resource, the tendency for them to use it is higher than when they are not aware at all. As Bentil (2011) states, when patrons of the library are made aware of certain library services, it results in patronizing and utilizing those services which otherwise would not have been utilized if users or the target groups were not made aware of them. In another study by Shelburne (2009), it was revealed that the use of e-books was low because the majority of the users did not know about the availability of the resource. Approximately 41% of the respondents stated that they had not used e-books

because they did not know e-books were available. Aina (2014) did a study on the awareness, accessibility and use of electronic databases among academic staff of Babcock University Business School and posited that, despite the subscription of electronic information resources, the students were unaware of their existence thereby lacking full accessibility of the databases.

Librarians have to adopt all kinds of marketing and promotional strategies to create the necessary awareness of the availability of their resources. When this is not done, it leads to underutilization of library resources and the resultant issue is that they cannot justify their continuous budgets being spent on such resources. Therefore awareness of any library resource is fundamental to the continuous use of that resource and it should, therefore, be treated as an important aspect of librarianship.

2.7.2 Preference for Print Books

Another factor that affects the use of e-books is students' or users' preference for print books as against electronic books. Academics, including students, have lived with the print book and studied it for several hundreds of years and have therefore grown accustomed to the use of the print book when learning and thus prefer to use it rather than the e-book (Grace, 2011). Some students also find it difficult reading from the screen (Baker, 2010; Romero-Otero, Fernandez and Gimerez 2013) as the only platform for e-books and hence prefer print books, and this ultimately affects the patronage of any e-book collection. Again, Shelburne (2009) in his study found that about 15% of respondents did not like reading from the screen and another 7% preferred print books to e-books. Option for print books therefore generally affects the use of e-books whether it is compelled by a reason or as a result of the reader being used to print books.

2.7.3 Lack of Computer Literacy Skills or Information Searching Skills

Without the necessary computer literacy skills and information searching skills, users may find it

difficult to find or discover relevant information resources especially when the resources are Internet-based like the e-books. This is coupled with the belief that electronic resources have become so varied, and thus retrieving relevant and authoritative information required some level of information literacy otherwise the task becomes daunting and time-consuming. There is anecdotal evidence that lack of information searching skills results in low patronage or access to electronic resources with e-books inclusive. Ray and Day (1998; cited in Korobili and Tilikidou 2015) observed that limited time and lack of effective information retrieval skills are the main barriers to using e-resources. Mwanzu (2014) affirmed that a lack of knowledge and skills in accessing and using e-books result in low usage of e-books. A study done by Shelburne (2009) found that 10% of the respondents stated that they did not know how to find e-books. O'Cennel and Haves (2013) in their studies recognized information searching skills as a major impediment to e-book access and therefore recommends that instructional training is given to clients on the usage of e-books in the library because patrons can sometimes experience some frustrations when searching for e-books. Besides, the e-book phenomenon is considered to be for technologically-savvy people, such that there is a high probability that those who are not computer savvy are likely to stay away from it. According to Link (2012), e-books are a way of keeping up with the demands of technology-savvy patrons. Also, in the view of Posigha (2012), *“e-books have become tools of choice for researchers and students, particularly those who belong to the so-called digital generation who can access and browse contents at any moment from their laptops.* A survey by Worden (2014) reports of being put off by “technology as one of the common reasons for not using e-books”. It has also been discovered in the literature that e-books need at least some electronic device to be able to access its content especially those that are not in PDF format. According to Mwanzu (2014), access to no computer devices, Internet,

and power could lead to limited access to e-books.

2.7.4 Discipline/Programme of study

Control on the usage arrangements of e-books had been found to have a greater impact on the utilization of the e-book. According to Worden (2014), Humanities and Social Science Students (HSS) were leading the way in the uptake of e-books. A study by Levine-Clark (2014), reports that Social Science students use e-books much more frequently than science and technology students.

2.7.5 Age

Age also plays an important role in determining the usage of e-books or the use of electronic resources. Wells and Sallenbach (2015) state that user acceptance of e-books is uneven with generation. They observed that young undergraduates generally are more comfortable with the use of e-books compared with older post-graduate students, and researchers particularly in the humanities, as well as international students whose first language is not English, who often prefer print books. Furthermore, Eicker-Nel and Mathee (2014) in their study found a correlation between age and adoption of new technology. They posit that young students and young teachers were more open-minded towards using and adopting a new technology whilst older teachers adopted the new technology with much more resistance.

2.8 Challenges of the use of e-books

Several challenges bedevil the widespread use of e-books. Among them are:

2.8.1 Licensing and Digital Rights Management (DRM)

One major disturbing challenge facing e-books' use is the issue of licensing and digital rights management technology. DRM is often placed on e-books to limit access to title and to control

the way a user might interact with the content of the e-book. According to Rice (2013), e-books licensing has a variety of models which can be categorized into print, databases, and open access licensing arrangements. The print model vendors are known to use digital rights management technology that put a level of restriction on access and usage in the area of printing, copying, pasting and saving of the content of the e-book. Again, Rice (2013) said that, the database model was the one that has famous licensing arrangement where the content of the e-book was treated as database. This he explained that once the content is licenses, the users can access it without encountering any difficulty. Morley & Parker (2015) opined that open access enable clients to access information at any given time with the assistance of ICT. Babu (2011) said that, databases are collections of related data that has been stored in a computer system that can be retrieved electronically as and when needed. Rice (2013) explained open access as a computer system that allow several titles to be accessed freely on the web, though there were some restrictions based on the site that one would visit. This practice, however, contravenes the perception of the present society where access to information should not be impeded in any way. It, therefore, makes it difficult to promote the use of e-books. Similarly, Melcher (2015) believes that accessibility would be obstacles to client's usage of e-books. Melcher further states that DRM technology often serves as an inhibitor to the use of e-books due to the restrictions placed on such publications, thus being a disincentive to users of these digital materials.

2.8.2 Incompatible Models of Devices

Currently, most e-books are read with the aid of a device or an e-reader. Unfortunately, different companies that produce these readers have adopted incompatible models and thereby limiting and restricting the performance of these readers. Melcher (2015) affirms that non-standardization has been a major impediment to the use of e-books as the different systems adopted by different

publishers do not work across a common platform.

2.8.3 Embargoes on E-books

E-book embargoes are especially problematic for library approval plans. If an approval plan includes print and e-book editions, the notification for a print edition may arrive several months before e-book notification. The selector may choose print instead of the e-book in this instance, though commitment might have been made to buy e-books. It is also likely to delay the approval plan for the acquisition of important titles (Thompson & Sharp, 2009).

2.8.4 Other challenges

Akporhonor and Akpojotor (2016) undertook a study on challenges in the use of electronic resources and reported that poor electricity supply, inadequate internet connectivity, information overload, delays in downloading information and some websites not being easy to access are the challenges encountered by the postgraduate students in accessing information resources in Southern Nigeria. Omeluzor et al (2014) undertook a study on the use of electronic information resources in Ogun State and reported that students of the University did not have personal computers, then another problem was power outages among others were found to be inhibiting effective use of electronic information resources by the postgraduate students in the University and they concluded that these affected their research output. Gakibayo, Ikoja-Odongo and Okello-Obura (2013) assessing the utilization of electronic information in Mbarara University found that e-resources utilization by students was not only affected by inadequate computers but also lack reliable internet connectivity. The study further revealed that e-resources were not heavily utilized and there is the need to increase its awareness. Walters (2013b) also researching on e-books in academic libraries concluded that the use of e-books in academic libraries was different from the use by other individuals. He noted again that, academic libraries face a lot of

challenges when using e-books and the following were some of the difficulties he outlined such as issues with institutional licenses that will enable viewing, printing, saving or copying a file and other user restrictions.

Other factors influence the use of e-books and its acceptance in academic circles. According to Cassidy et al. (2012), Shelburne (2009), and Muir and Hawes (2013) other factors that impede the use of e-books include difficulty in simultaneously referring to multiple texts. Researchers that need to refer to multiple texts may prefer print books. Additionally, accessibility issues such as when reading the session's timeout for inactivity before the user is done reading could also be frustrating. Woody and Daniel (2012) reported distractions when reading from a screen where one has to access an e-mail and social media. There are also reports that e-books take a lot of time to load which can also be frustrating especially when access to the Internet is not stable. When students find that there are enough print books in the library and insufficient e-book titles in the area of their study, they will automatically resort to the use of print books against e-books.

2.9 Key constructs of the UTAUT model

2.9.1 Performance Expectancy (PE)

Venkatesh et al. (2012) refer to PE as “the degree to which using technology will provide benefits to consumers in performing certain activities”. Oliveira, Faria and Thomas (2014) reported in their study that PE had an influence on BI in adopting m-banking. In the same vein, a study conducted by Slade et al. (2014) also shows PE positively influencing BI to adopt m-payment. Their data were collected from the UK consumers by using an online survey and was analyzed by regression analysis. Lin, Zimmer and Lee (2013) in their study asserted that PE has a positive effect on BI to adopt Podcasting and this was based on a survey administered to teachers and students in a Northeastern United States College via email which was evaluated

using (PLS). A survey conducted by Popovic, Martins and Oliveira (2014) via email distributed to students and ex-students from the Portugal University discovered that PE had a positive relationship on BI toward the adoption of internet banking. The study used SEM as a data analysis tool to bring out the findings.

2.9.2 Effort Expectancy (EE)

Effort Expectancy according to Venkatesh et al. (2012) is the “degree of ease associated with consumers’ use of technology”. Chang (2013) in a study on undergraduate and postgraduate students in Eastern Taiwan, which was analyzed using SEM revealed that EE had a positive link with BI of using a mobile application. Another study by Teo et al. (2015) on the utilization of m-payment (Mobile Payment) distributed survey questionnaire to Malaysian University students and the findings revealed evidence that EE positively influenced BI in the utilization of m-payment. Tai and Ku (2013) also affirmed EE having a significant influence on the intention of investors to adopt mobile stock commerce. This was based on an online survey collected from Taiwan stock investors and tested using Partial Least Square (PLS) regression. Besides, Alharbi and Drew (2014) did a survey on m-learning system among Griffith University students and the results showed EE having a positive effect on the students BI to employ the m-learning system. Im, Hong and Kang (2011) also conducted a survey in South Korea and the US on the adoption of MP3 players and reported that EE had a positive influence on BI toward the use of MP3 player and Internet banking. Additionally, Attuquayefio and Addo (2014) studied the intention of students in the use and diffusion of technology for learning and research in Ghana by using UTAUT model and found EE as an eminent predictor of BI to use and accept technology for learning and research.

2.9.3 Social Influence (SI)

Social influence according to Venkatesh et al (2012) refers to “the degree to which an individual is persuaded by his/her peers to use a particular technology or other person/s leading them to accept an innovation (eg. Family and friends)”. Social Influence was used as a variable to test students of Jordan Public University on the adoption and usage of m-commerce (Mobile Commerce) and the results were that SI was found to have a positive influence on the users’ BI on m-commerce adoption and usage (Jaradat & Rababaa, 2013; Alwahaishi and Snasel, 2013) posit that SI positively impacts on BI in the use of mobile internet when a study was conducted in Saudi Arabia. Yu (2012), Jawad and Hassan (2015) noted that SI has a positive influence on people’s intention to accept e-resources. Furthermore, a study conducted by Chong, Chan and Ooi (2012) also reported SI as a determinant variable positively influencing users on BI to employ mobile trading in China and Malaysia mobile shops. Chong, Chan and Ooi (2012) used exploratory factor analysis to evaluate the data that was collected for the study.

2.9.4 Facilitating Conditions (FC)

Venkatesh et al (2012) again define Facilitating Conditions as “the consumers’ perception of the resources and support available to perform a behaviour”. Yang (2010) in a study on mobile shopping service users indicated that FC has positive relations on BI to use mobile shop services. Gaffar, Thomas, and Singh (2013) in their study on university students in Guyana reported that FC was seen as having a positive link to the adoption of e-resources. Chong (2013) studied the acceptance of technology in China and states that FC correlates positively on BI in the acceptance of that technology and Yeoh and Chan’s study (2011) on Internet banking adoption in three areas of Cherasm Ampang and Pudu found that FC and BI have a positive relationship on the acceptance of technology.

2.9.5 Behavioural Intention (BI)

Behavioural Intention according to Pickett et al (2012) is a “function of both attitudes and subjective norms about the target behaviour predicting actual behaviour”. It can also be examined by a person’s willingness to perform a particular function. Zhang, Zhu and Liu (2012) noted that BI is an important factor that influences another person’s behaviour in the Technology Acceptance Model (TAM).

2.10 Conclusion

It is clear from the above literature review that the e-book has gained grounds in the developed world and quickly making its way into the developing world. The e-book has come to stay and will live side by side with the print book for some time without necessarily causing the extinction of the paper book but just an addition. Factors such as awareness, preference, computer literacy skills and information searching skills, the discipline of study, age and other factors influence the use of e-books. The e-book has gained popularity among the academic population including faculty, students, and researchers. Students find e-books to be convenient, accessible, and cost-effective. It is expected that prospects of the e-book will be fully harnessed for the full benefit of the academic society in the not too distant future. Africa and for that matter, Ghana, needs to do more in the field of e-publishing to catch up with their European counterparts. Further research needs to be conducted into the area of the challenges of e-books to unravel a lot more on the factors that impede the full adoption of the technology.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

Research methodology is a framework adopted by the researcher to conduct research. This is associated with a set of specific instruments and techniques that are used to gather and analyze data that will be collected as indicated by the research technique used (Boateng, 2014). This chapter, therefore, discusses the various ways of carrying out the study in order to achieve its aims and objectives. This comprises research design/strategy, selected cases/study setting, selection of subject (population, selection of sample size). It went on to discuss data collection instrument, pretesting, presentation of data analysis as well as ethical consideration.

The collection of information or data for a study requires the use of the researcher's time and looking at the time available to submit the work, a quantitative research methodology was adopted. The target population was all postgraduate students who registered for 2018/2019 academic year at the UG and the GTUC. The registered postgraduate students were chosen because they were more likely to patronize the service or utilization of e-books for their learning and research work especially when the print format is not available.

3.2 Research Design

The research strategy as per Creswell (2014) is the type of inquiry in quantitative, qualitative and mixed methods approaches that give a distinct direction in an investigative study. The strategy consists of a distinct assertion of testing an inquiry and ideas for assembling, refining and analyzing the results planned to answer the query or goals (Creswell, 2014). Again, Saunders, Lewis, & Thornhill (2007) “define a research strategy as a plan or guide which a researcher uses to answer research question(s) and objectives, and it covers the extent of existing knowledge, the

amount of time and other resources available as well as the researcher's philosophical foundation". In the same vein, Ahmed (2012) also defined research strategy as a "step by step plan of action that gives direction to your thought and efforts enabling one to conduct research systematically".

A survey is assembling the required data fundamentally for the purposes of research among different clients as the need emerges. A survey is a strategy for information gathering from samples which are representative of a population.

The study, therefore, adopted a quantitative study approach which is most suitable for explanatory studies with the ability to answer 'what and how' research questions which can apply in either quantitative or qualitative techniques for data collection. The quantitative methodology used involves gathering and analyzing mathematical information and applying the statistical test. This is done as a means of investigating the objective of the study by examining the correlation of variables. Correlation existing among quantitative variables is usually depicted with tables, column, line and pie charts. Quantitative research is an approach which the investigator uses to express and evaluate the degree of relationship between several variables of sets of results. Variables that the investigator used can then be calculated on instruments so that numerical information can be analyzed by employing analytical methods. Closed-ended responses are usually used for quantitative data (Creswell, 2012, 2014). Ahmed (2016) indicated that quantitative research methodology has been described as the best method to investigate attitudes and also to determine factors of the use of particular resources.

3.2.1 Justification for Research Design

Quantitative survey methodology was adopted for the study based on the following premises;

- Quantitative exploration gives an exact, dependable and numerical data that can be used for generalization of findings.
- Quantitative research enables the investigator to do easy comparison when analyzing the results
- Data collected through a quantitative method is analyzed at a lesser cost
- The quantitative methodology permits larger information to be accumulated and joined with factual data
- It also provides accuracy and gives a better objective of data
- The quantitative methodology enables a researcher to measure any phenomenon objectively
- The quantitative methodology enables the researcher to process and analyze a huge amount of data
- Using a quantitative research design allows the researcher to cover a wider population
- Finally, it allows a lesser time to be utilized for information assortment and examination when using statistical software (Panneerselvan, 2011; Sarantakos, 2013).

3.3 Selected Case(s) Study Setting

The University of Ghana (UG) and the Ghana Technology University College (GTUC), both in the Greater Accra Region were the selected cases for the study. The selection of the two Universities was based on the following reasons:

- The two universities chosen provide e-books/e-resources services to their students
- Moreover, the Universities selected were reachable to the researcher, so data collection could be highly feasible.

- The resources available to the researcher could not cover a study of many universities and also time available was limited so the researcher decided to select one public and one private university for the study.
- The UG as a public university and the largest and oldest among the public universities in Ghana, and the GTUC also found to be one of the largest and oldest among the private universities in Ghana informed the researcher to choose the two institutions for the study.
- Initial research conducted by the researcher revealed that these two universities have the largest numbers of postgraduate students.
- Both universities have also been accredited by the National Accreditation Board
- Finally, the University of Ghana was placed at the top position and the GTUC on the 11th position by UniRank which is among the top private institutions, when it ranked all the universities in Ghana in 2018.

3.4 Selection of Subjects

The following was discussed under this section; population, selection of sample size and data collection instrument.

3.4.1 Population

The area covered under this study is the UG and the GTUC located in Accra. The population for the study comprised the postgraduate students of the UG and the GTUC.

Alreck and Settle (2004 cited in Ankrah, 2014) indicated that respondents within the population should have the same information needed by a researcher for a study. A population is any precisely defined set of people or objects or a collection of items which is under consideration because of the need to conduct statistical analysis (Badu, 2015). Neuman (2014) defined a population as an “abstract concept for a large group of cases through which a researcher pulls a

sample and from which results from the sample drawn is generalized”. The population for the study was the postgraduate students of the UG and the GTUC.

The total number of postgraduates at the UG and the GTUC was 4,818 and 896 respectively (University of Ghana Institutional Research and Planning Office (IRPO), 2018; GTUC Postgraduates’ Dean’s Office, 2018). The postgraduate students provided the researcher with the information needed to answer the study’s objectives because they had been identified to have been using e-books for their learning and research.

3.4.2 Sample Size

According to Osuala (2005), conducting research is too expensive and also difficult to gather information from every single potential respondent. Burmeister et al. (2012) indicated that sample size is “one element of research design that investigators need to consider as they plan their study. He further said that sufficient sample is the minimum number of participants required to identify a statistically significant difference, if a difference truly exist”. Thus, a sample was picked to represent the entire population. A sample is, therefore, a subset of the population that allows the researcher to select from cases for observation (Singleton and Straits, 2010). “Kumar (2005) observed that a sample is a segment of the population selected to represent the whole population. It should, therefore, be representative to enable the researcher to come out with accurate estimates of the thoughts of the larger population”. It is, therefore, possible to make a generalization when studying elements in a smaller proportion of the population. Kumar (2005) again views a sample as a process of selecting some members from a larger population to be used to represent the broader population. Zamboni (2018) also said that, “a sample size is a count of the individual or observation in any statistical setting, such as a scientific experiment or a public opinion survey”

There exist various types of sampling designs and these are probability and non-probability. The probability sample is commonly associated with survey-based research where the researcher needs to make inferences from the sample about the population. Probability sampling, therefore, in quantitative research is a way of selecting a large number of individuals who are to represent the entire population or who represent a segment of the population. Selecting cases in non-probability sampling is usually done non-randomly because the chances of selecting a case may not know. Non-probability also involves choosing members based on their availability for the study (Creswell & Clark, 2011). The study, therefore, used the Proportionate Sample Size to select from the population.

According to Fraenkel and Wallen (2000), “a sample should be as large as the researcher can obtain with a reasonable expenditure of time and energy”. The total number of the PG students for both universities is **5,714** made up of **4,818** and **896** from the UG and the GTUC respectively. This is portrayed in Table 1 beneath.

Table 1 Population of Postgraduate Students

University of Ghana (UG)	4,818
Ghana Technology University College (GTUC)	896
Total	5,714

Source: UG IPRO 2018 and GTUC Dean’s Office, 2018

The University of Ghana’s figures are students who have been enrolled to pursue a programme in the university. On the other hand, the Ghana Technology University College has partnered to run its postgraduate programmes with the following universities: Coventry in the United Kingdom, Anhalt in Germany, CASS in Europe and Kwame Nkrumah University of Science and Technology (KNUST) in Ghana, therefore, the number of postgraduate students enrolled in each

of the universities was what has been represented by Table 1 above. Some of the programmes run by UG are Accounting, Public Administration, Information Studies, Political Science, Geography and many more. The following are the programmes the GTUC and its partners also offer: Master of Science, MBA Finance, Logistics, Engineering and Management, MSc Oil and Gas Management, MSc Telecommunication Engineering and Management, MSc Management Information Systems, MBA International Trade, MSc Information Technology for Management, MSc Business Entrepreneur and Technology as well as MBA Petroleum Economics and Finance. The grand total of the population for the study is 5,714. Alreck and Settle (2004) have said that a sample size of 10% will be appropriate for a study. (10% of the 5714 is 571). Therefore, in order to arrive at a proportionate sample size for each of the universities, the following formula was used.

The Population for each of the university will be divided by the Total Population for both universities, and then multiplied by the 10% sampled, that is 571.

$$\frac{\text{The Population of Each University}}{\text{Total Population of Both Universities}} * \text{Sample size}$$

For example, University of Ghana is calculated as follows;

$$\frac{4818 * 571}{5714} = \underline{481.46} \text{ (Approximately 481)}$$

$$\text{Ghana Technology University College} \quad \frac{896 * 571}{5714} = \underline{89.53} \text{ (Approximately 90)}$$

The breakdown of the sample size as depicted in Table 2 is as follows:

Table 2 Sample Size of Postgraduate Students

University of Ghana (UG)	481
Ghana Technology University College (GTUC)	90
Total	571

However, Alreck and Settle (2004) postulated that, at any given time that the sub-sample size falls below 1000 units, the researcher can consider 100 units which they considered to be a minimum practical size. Therefore, the University of Ghana which has 481 respondents will be further sampled to 100. Alreck and Settle (2004) again suggested that subsamples can be increased in order to ensure adequate numbers in them, therefore, the proportionate sample size for the Ghana Technology University College was increased by 10 to make up 100 respondents. Again, Fan, Thompson & Wang (1999, cited in Ahmed, 2016) posit that a sample size of 200 was considered to be adequate and the researcher (Ahmed, 2016) explained that, available literature reviewed showed most of the research work done in the area of acceptance of a technology or electronic resources collected data that range between 200 and 300 samples. Therefore, 100 postgraduate students were selected from each university to make the total sample size of 200 for the study.

The new sample size of the postgraduate students at both universities was as follows;

Table 3 New Sample Size

University of Ghana (UG)	100
Ghana Technology University College (GTUC)	100
Total	200

Source: Field study, 2018

To select the participants, therefore, a Fishbowl random sampling method was used as follows:

The researcher used the sample size obtained of the postgraduate students of both Universities

and assigned each student with a number ranging from 01 to 100 for each university. The digits were then composed on bits of paper, folded and placed in a bowl. The papers were stirred and the numbers that dropped out of the bowl individually was taken and ticked on the list and those numbers were given the questionnaires to complete (Thomas & Brubaker, 2000).

3.5 Data Collection Instrument

Data collection instruments for research are regarded as tools that enable researchers to gather the necessary information for their study. Questionnaires are considered as a written instrument, interviews are also viewed as verbal communication that exists between the interviewer and the respondents whereas observation is noted to be looking at an event closely and all these are part of the several instruments for collecting data for research. The data collection instrument that was used was a structured questionnaire. (Wilson 2011; Holmes, Byrne & Rowley, 2013) indicated that it is convenient for respondents to answer close-ended type of questions for analysis. Similarly, Johnson and Christiansen (2012) defined a questionnaire as a “self-report data collection instrument that each research participant fills out as part of the research study”. Pickard (2013), as well, defined a questionnaire as a “pre-determined series of questions that the researcher can administer either through an interview or mail”.

All the data collection instruments have their advantages and disadvantages and that of the questionnaire have been outlined by Busha and Harter (1980) and Ahmad (2012) as follows:

- “enables a wider coverage of the sample chosen than the interview
- provides access to more educated respondents
- provides an opportunity for respondents to give frank and anonymous answers
- a single instrument can be duplicated and distributed to numerous respondents which can produce a large amount of data

- easy to analyze
- they are less intrusive
- cost-effective
- familiar to many people
- data entry and tabulation for all observations can be done easily with most computer software packages and
- Finally, it can be completed at the respondent's leisure period, no pressure”.

The following disadvantages are also outlined by Busha and Harter (1980); Ahmad (2012) as follows:

- possibility of low response
- inability to probe respondents
- they allow little flexibility since they are structured instrument
- it could be completed by the unintended respondent
- not suited to some people, eg illiterates

The survey instrument that was used to elicit information for the study was a self-administered questionnaire. A quantitative methodology was used as the participants of the study completed a structured questionnaire comprising mainly closed-ended questions and a few open-ended ones.

The questionnaire was divided into the following sections:

- Section A: Demographic information of Respondents
- Section B: The Level of Awareness of e-books
- Section C: The Usage and Purpose of use of e-books
- Section D: Factors influencing usage of e-books
- Section E: Benefits/Importance of the use of e-books

- Section F: Students perception and attitudes towards the use of e-books
- Section G: Challenges of usage of e-books

In organizing the questions, a straightforward language was utilized. In all twenty-five (25) questions were asked. “Almost all the questions were closed-ended questions with possible answers, and respondents were asked to choose the ones that best answer the questions. These were the measures taken by the researcher to enable participants to complete the questions quickly”.

3.6 Pretesting

Pretesting of the questionnaire was done in the pilot survey. This enabled the researcher to identify mistakes outfitted towards guaranteeing fulfillments and precision as well as to check irregularities in the questionnaires.

Pretesting according to Chen (2012) is a procedure that involves a researcher conducting an initial test of the data collection instrument in order to identify and deal with any problems that may occur during the administering of the data collection instrument and changes made before the actual collection from the targeted group. In line with this, an initial test was conducted by using the University for Professional Studies, Accra (UPSA) graduate students. In all 10 questionnaires were distributed, administered and collected. After the data collection, all ambiguities in connection with the questions were corrected before the final distribution.

3.7 Data Collection Procedure

The researcher, from the beginning, collected a letter of introduction from the Head of Department of Information Studies to the institutions involved in the study (See Appendix II). The objective of the letter was to introduce the researcher and the aim of the study to the

authorities of the institutions so that the researcher could be allowed to use the institution for the study. The researcher was introduced to the Dean of the Graduate School of the Ghana Technology University and the Dean was briefed on the topic and why the school was chosen for the study. On 4th January 2019, the researcher visited the GTUC and met with the electronic resource librarian who introduced the researcher to the students after they had closed from lectures. The motive of the study was explained and their consent was also sought before the distribution of the questionnaire to those whose names were ticked. Clarification was given to questions that needed further explanation. At the University of Ghana, the researcher was introduced to the Dean of Graduate School and the purpose of the research was explained to him after presenting the introductory letter (See Appendix II). The Dean promised to communicate the researcher's intention of the study across the colleges for any assistance the researcher might need during the data collection. The researcher then moved to the colleges at different times to meet the postgraduate students and explained the purpose of the study and also sought their consent before the questionnaire was distributed to those whose names were ticked. Clarification was also given to questions that needed further explanation. The questionnaires were then filled by the respondents and same were collected by the researcher at a later date.

3.7.1 Problems of Fieldwork/Data Collection

The researcher encountered a challenge in the data collection especially at the GTUC where students come at different times for lectures. The researcher had to spend a number of days in retrieving the questionnaires.

3.8 Presentation of Data Analysis

Data that were collected were analyzed using explanatory figures such as frequency tables, columns, line and pie charts. The data were coded, and each response assigned a value to maintain consistency, before analyzing, applying the Statistical Package for the Social Sciences (SPSS). SPSS is a software package that social scientists find as a useful tool for data analysis. Statistical Package for the Social Scientist was considered for the analysis of the data that were collected for a number of reasons which are stated below;

- “users of the package do not have to learn a system of elaborate coding to tell a computer what analysis to conduct but can simply enter their data into an easy-to-use data editor”.
- users could produce a graph of the distribution of variables by simply selecting items from pull-down menus to make an appropriate transformation to variables
- various statistical analyses can be selected by clicking on appropriate options
- researchers do not have to spend time disturbing themselves with the ins and outs of a statistical software package or learning a new programme for conducting analysis that take hours to master and finally
- SPSS is the most widely used statistical software in the social sciences (Healey, 2002 cited in Arthur, 2006).

3.9 Ethical Considerations

Fowler (2014, p.140) defined ethical consideration as “a manner in which research is carried out so that no individual suffers any adverse consequences as a result of the study”. Singleton (2010) views ethical consideration as a moral and responsible way of understanding and analyzing the origins and meaning of moral conduct.

The researcher, therefore, adhered to and also abided by the code of ethics required by the University of Ghana and the Ghana Technology University College for conducting research. The researcher also sought institutional approval for the conduct of the research (See Appendix II). The consent of the participants for the study was also sought. This was done through a letter (See Appendix I on the questionnaire). The aim of the study was also explained to all students who participated in the study and their confidentiality was assured. Finally, all sources cited have been duly acknowledged.

CHAPTER FOUR

DATA ANALYSES AND INTERPRETATION

4.1 Introduction

This chapter analyzes the data that were collected from the field. The aim of the study was to find out the use of e-books for learning and research by postgraduate students in Ghana. The survey instrument used for the data collection was a questionnaire (See Appendix 1). The total number of questionnaires distributed was 200 out of which 150 were returned representing a 75% response rate of both institutions of this number, 100 questionnaires were administered at the University of Ghana. Out of the 100 questionnaires, 97 were filled and returned giving 97% whilst 53 questionnaires were retrieved out of 100 from the Ghana Technology University College also representing a 53% response rate. The University of Ghana, therefore, recorded a higher response rate. Descriptive statistics such as frequency tables, bar graphs, columns, and pie charts were used to analyze the data with the aid of the Statistical Package for Social Sciences (SPSS). The results have been presented under the following headings:

- (a) Demographic information of respondents
- (b) The level of awareness of e-books
- (c) The level of usage of e-books
- (d) Factors that influence the use of e-books
- (e) Importance/Benefits of the use of e-books
- (f) Perception and attitude towards the use of e-books
- (g) Challenges faced by postgraduate students in the use of e-books

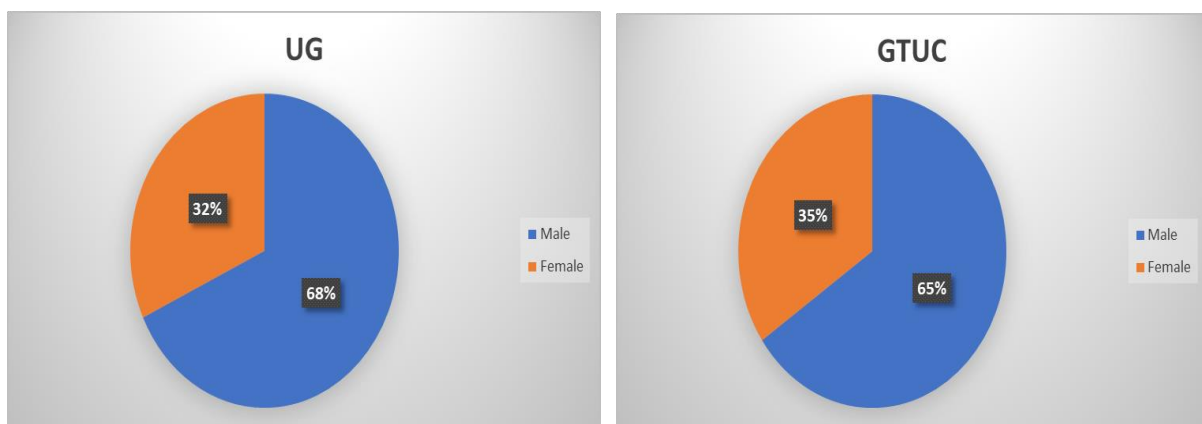
4.2 DEMOGRAPHIC INFORMATION OF RESPONDENTS

Data were collected on the demographic information of respondents from both universities and this included gender and age. It is believed that these characteristics have an influence on the use of e-books, although these statistics were not considered in this study. These characteristics have been outlined in the following sub-headings:

4.2.1 Gender of the Respondents

Gender was relevant because previous researches showed that it influenced the use of e-books (Nicholas et al., 2008). It was against this background that respondents in the study were asked to indicate their gender. Figure 4.1 shows the gender of the respondents.

Figure 4.1 Gender of respondents



Source: Field Data, 2018

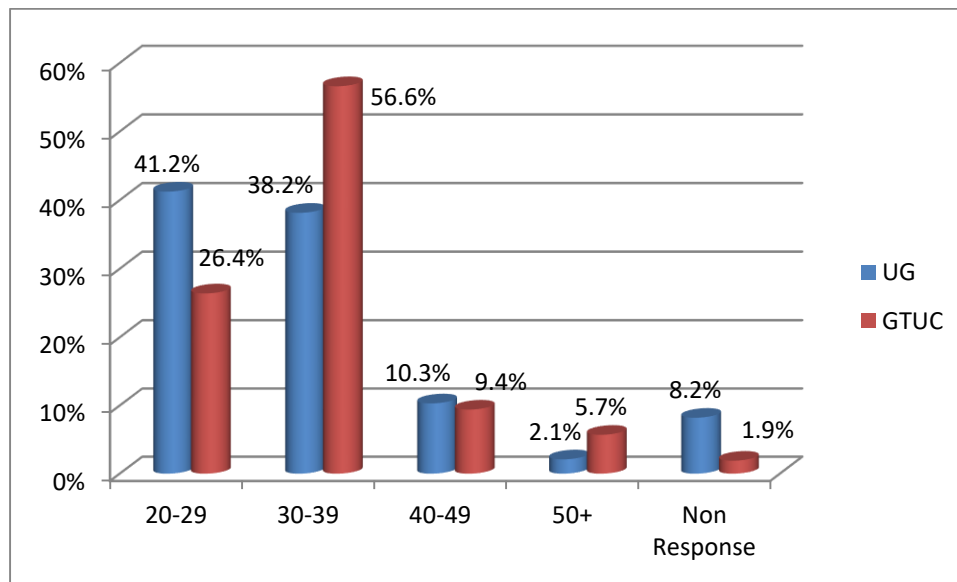
With the above figures, the UG had 66 (68%) as males and 31 (32%) as Females as against 34 (65%) males and 18 (35%) as Females in the GTUC. The results show that, the male and female respondents from the UG far outnumber that of the GTUC. Meanwhile, out of one hundred and fifty (150) responses received, 100 (66.7%) were males whilst 49 (32.7%) were females. This

shows that there were more male respondents in both institutions studied than the female. This agrees with Nicholas et al. (2008) who found out that male respondents formed a larger proportion of their study on the use of e-books.

4.2.2 Age of Respondents

According to Romero-Otero, Fernandez and Gimenez (2013), age also plays an important role in the use of e-books, thus it has an influence on the use of e-books. As a result, respondents were asked to indicate their age ranges. Figure 4.2 depicts the responses obtained.

Figure 4.1 Age distribution of Respondents



Source: Field Data, 2018

The highest age distribution of respondents of the University of Ghana was '20-29' with 40 (41.24%) as compared to '30-39' with 30 (56.6%) at the GTUC. The lowest age range recorded for both UG and GTUC was '50+' with 2 (2.10%) and 1(1.9%) respectively. The response recorded from '40-49' at the UG was 10 (10.31%) as against 5 (9.4%) at the GTUC with the respondents of the same age range. However, in the UG 8 (8.2%) of the respondents as against 1

(1.9%) respondent from the GTUC failed to indicate their ages. In general, the highest age range of respondents as shown in Figure 4.2 was '30-39' with 67 (44.7%) whereas the least was '50+' with 5 (3.3%) response.

The representation of the age group could, therefore, be said to be realistic because the study was intended for the postgraduate students who are perceived to be more advanced in age than undergraduates and technologically savvy which could also be interpreted to mean that, they are more likely to use the new technology which in this case are the e-books. The results, therefore, mean that greater parts of the respondents from both institutions were young adults. Romero-Otero, Fernandez and Gimenez (2013) posited that younger generations of students were more likely to use electronic resources than older ones.

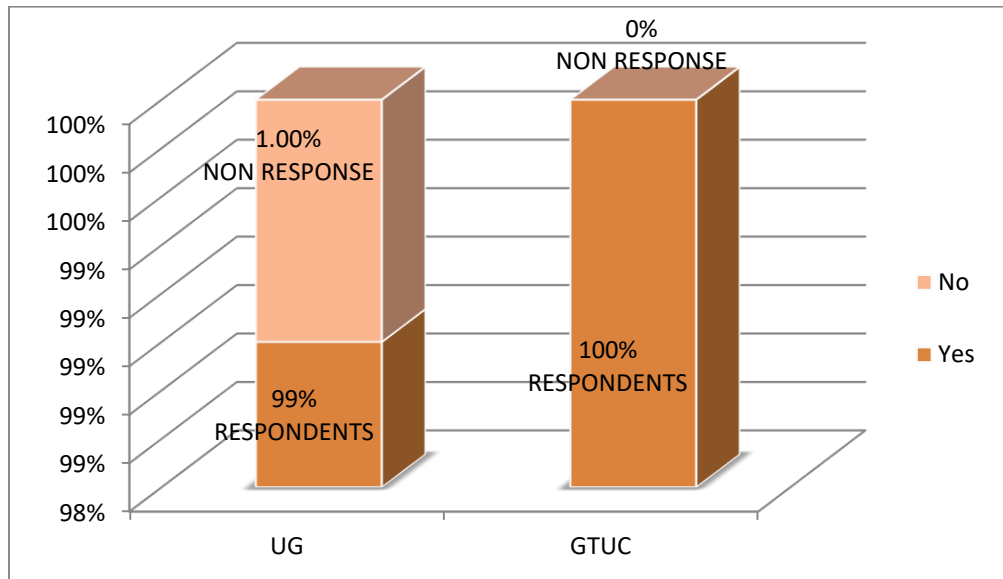
4.3 Awareness of e-books

The awareness of every information resource is very paramount to the utilization of that resource. To ensure sufficient awareness of any library resource, adequate publicity and training programmes must be put in place. Therefore, it was necessary to find out the extent of awareness, publicity, and training levels among respondents on e-books in the two universities which would eventually affect the utilization of e-books.

4.3.1 Knowledge of e-books

The knowledge of e-books was first sought among the respondents of the two institutions as knowledge plays an important role in the access and utilization of library services. The Figure below depicts vividly their responses.

Figure 4.3 Knowing of e-books



Source: Field Data, 2018

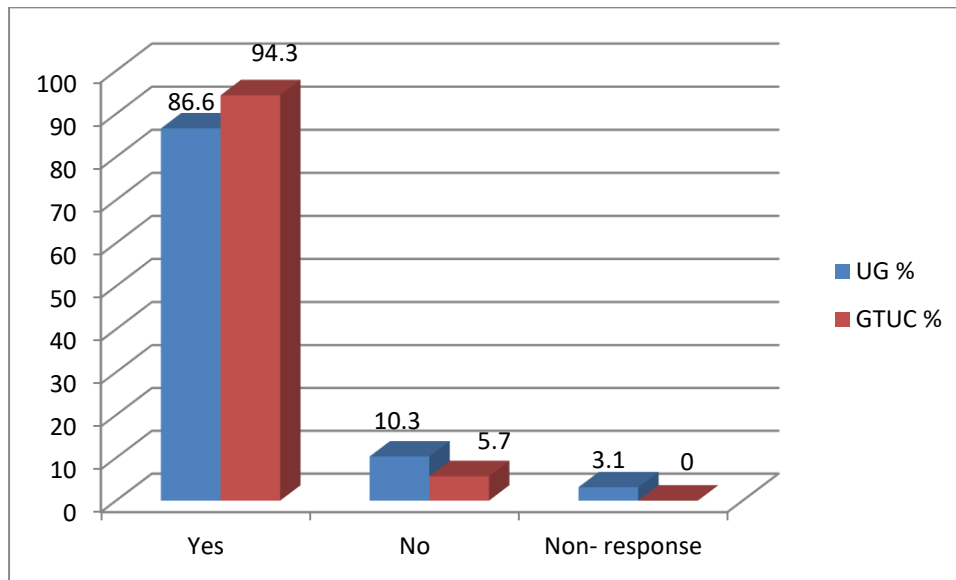
The respondents were asked to indicate their knowledge of e-books and Figure 4.3 shows 96 (99%) of the participants from the UG had knowledge of e-books as compared to 53 respondents representing 100% from the GTUC who completed the questionnaires indicated having knowledge of e-books. Meanwhile, 1 respondent from the UG indicated not having any idea about an e-book. It can, therefore, be said that majority of the respondents from both the UG and the GTUC knew what an e-book was.

4.3.2 Existence of e-books in the institution

Awareness creation is very essential to the utilization of library resources. When library users are aware of the existence of any library resource, it ultimately leads to its utilization. A library's resources would be a waste when the needed awareness is not created about them. Barker (2008) asserts that the increase in the use of e-books is enhanced when awareness about their availability is created. Lamb (2012) emphasized the importance of awareness creation in the

utilization of library resources such as the e-book. It was against this background that the respondents were asked to indicate their level of awareness of e-books provided in their respective university libraries. Figure 4.4 shows the awareness of e-books.

Figure 4.4 Knowledge of the existence of e-books in institutional libraries



Source: Field data, 2018

Figure 4.4 shows a majority of the respondents, 84 representing 86.6% from the UG had indicated their awareness of the presence of e-books in their institution's library as compared to 50 respondents representing 94.3% of the total respondents of the GTUC also indicated that they were aware of the existence of e-books in their institution. Moreover, 10 and 3 representing 10.3% as against 5.7% of the UG and the GTUC students respectively indicated not being aware of the availability of the e-books in their institutions. Meanwhile, 3 students representing 3.1% of the respondents from the UG failed to respond to the question. Comparatively majority of the respondents from both institutions were aware of the existence of e-books in their libraries. Corlett-Rivera and Hackman (2014) reported close outcome in their study on awareness and usage of e-books by University of Maryland library users in the USA.

4.3.3 How the respondents got to know of the e-books

Sources of knowledge about e-books' existence in an institution are some of the many ways of publicizing e-books and it is important that adequate and proper methods are put in place to ensure sufficient publicity which will ultimately lead to the patronage of e-books. On this basis, participants were requested on how they got to know about the existence of e-books in their respective institution's libraries. The following were their responses: Thirty-seven point one percent (37.1%) from the UG heard about it during library orientation as against 35.8% from the GTUC. Again, 23.7% from the UG read about e-book from the Library's website as opposed to 18.9% from the GTUC. Additionally, 17.5% from the UG said that they heard about it from their colleagues as compared to 11.3% at the GTUC. At the UG, 6.2% indicated to have heard from a friend as against 3.8% from the GTUC. Moreover, 3.1% from the UG read about it from notice boards as compared to 5.7% from the GTUC. At the UG, 2.1% got to know of e-books from library staff as opposed to 17% from the GTUC. The result shows that most of the respondents from the GTUC were informed about the e-books through their institutional library staff as opposed to their counterparts at the UG.

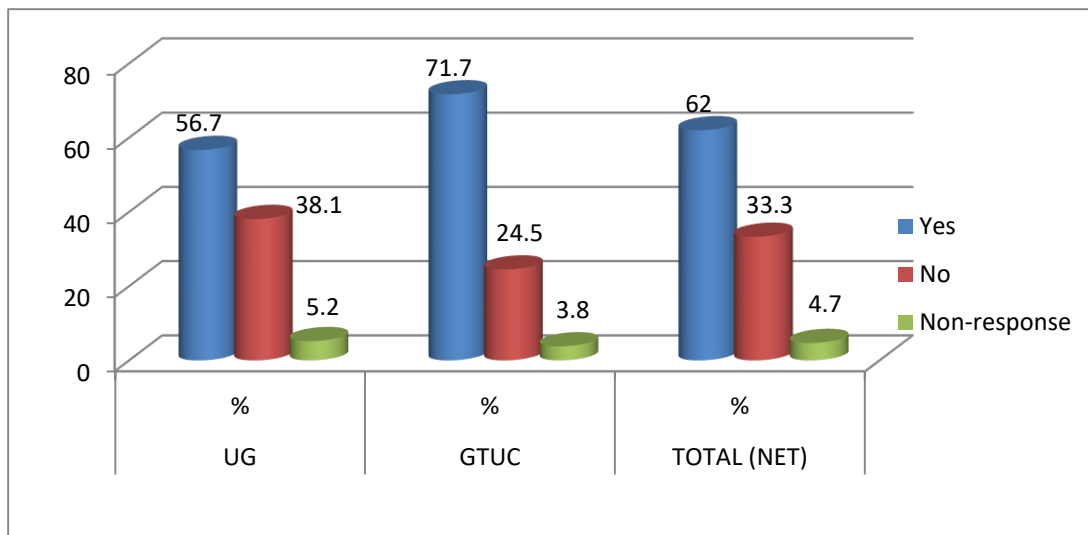
With regard to the GTUC, 3.8% also indicated hearing about e-books when conducting a literature search as no response was recorded at the UG to that effect.

Meanwhile, 10.3% and 3.8% from both the UG and the GTUC respectively failed to respond to the question. The results showed that there were a variety of ways respondents obtained their knowledge about e-books though the percentages are thinly spread across, it is fair to say that there were adequate publicity methods adopted by both institutions.

4.3.4 Publicity of e-books

Publicity of information resources has become a prerequisite for most libraries of tertiary institutions of which e-books are no exception. Publicity allows information to be made known to users of the information centre or library. Due to this, the respondents' views were sought to find out if the e-books used in their institutions were well-publicized and Figure 4.5 below depicts the views of the respondents about the publicity of the e-books.

Figure 4.5 Publicity of the e-books



Source: Field data, 2018

At the UG, 55 (56.7%) responded favourably to the publicity of the e-books as against 38 (71.7%) at the GTUC. On the other hand, 37 (38.1%) of the respondents at the UG had indicated negative responses as opposed to 13 (24.5%) responses received from the GTUC. However, the least, 5 (5.2%) and 2 (3.8%) of the respondents of both the UG and the GTUC respectively did not respond to the question. According to Figure 4.5 in general, 93 (62%) which constitutes the majority of the respondents indicated that e-books were well-publicized whereas 50 (33.3) responded that, the publicity of the e-books was not enough. Meanwhile, 7 (4.7%) of them

provided no answer to the query. It could, therefore, be said that e-books were well-publicized in both the UG and the GTUC.

4.4 Usage of e-books

Information and Communication Technology (ICT) and other electronic gadgets are gradually transforming the way human beings used to study. Most students nowadays turn to do reading either on their mobile phones or computers which makes ICT play a vital role in human life. Usage rate has become a very critical issue among librarians and information professionals as a whole. It would be disingenuous for the library to spend huge sums of monies acquiring resources without correspondingly finding out how those resources are used. For this reason, user surveys have inundated the library field for the past couple of years now (Rehman, Shafique, and Mahmood, 2011). It was against this background that, respondents' views were sought to determine the extent of e-book usage in both institutions.

4.4.1 Usage of e-books

The usage of an e-book was considered critical in this study. Therefore, the researcher sought to find out from the respondents from both the UG and the GTUC whether or not they use e-books for their learning and research. Table 4.1 illustrates the results received from the respondents.

Table 4.1 Use of e-books

Use of e-books	UG		GTUC		Total (Net)	
	No.	%	No.	%	No	%
Yes	85	87.6	40	75.5	125	83.3
No	12	12.4	13	24.5	25	16.7
Total	97	100	53	100	150	100

Source: Field data, 2018

At the UG, 85 (87.6%) of the respondents indicated their usage of an e-book as compared to 40 (75.5%) respondents at the GTUC who had used an e-book before. Though, 86.6% of the respondents at the UG indicated their awareness of the existence of e-books in their institution, yet the usage rate was more than the awareness rate by 1.0% which may be due to the respondent just answered the question. Meanwhile, 12 (12.4%) and 13 (24.5%) students from both the UG and the GTUC were the non-users of e-books. The outcome show that most of the participants 125 (83.3%) confirmed their use of e-books as opposed to 25 (16.7%) who had not used e-books before. This shows that most of the respondents in both the UG and the GTUC had used an e-book for their learning and research work. This result bears a resemblance to that of Romero-Otero, Fernandez and Gimenez (2013) who reported that, the majority (79.5%) of the respondents were already using e-books for their scholarly work.

4.4.2 Training in the use of e-books

Training forms an important aspect of every new technology. Thus, it is important that users are taught the necessary skills to be able to use a new technology such as the e-book. Slater (2010) asserts that increasing awareness and usage of e-books will largely rely on marketing and instructional campaigns due to the complexity of finding and accessing e-books. It was against this backdrop that respondents were required to show whether they received enough training in the use of e-books. Table 4.2 shows the responses received.

Table 4.2 Training skills

Training skills	UG		GTUC		Total (Net)	
	No.	%	No.	%	No.	%
Yes	33	34	34	64.2	67	44.7
No	64	66	19	35.8	83	55.3
Total	97	100	53	100	150	100

Source: Field data, 2018

At the UG, 33 (34%) of the respondents asserted that they received training in the use of e-books as compared to 34 (64.2%) at the GTUC. Meanwhile, most of the respondents being 64 (66%) in the UG said they did not receive any training in the use of e-books whilst 19 (35.8%) at the GTUC said that they were not given training in the usage of e-books. It is clear that most of the respondents in the GTUC did receive training in the use of e-books as opposed to 64 (66%) in the UG who were not given any training in the use of the e-books. Table 4.4 in general, shows a sizable number of the respondents 67 (44.7%) indicated that they received enough training in the use of e-books whilst the majority of the respondents 83 (55.3%) said, they did not receive any training in the use of the e-books. This implies that training, in general, was given. However, training at the UG was low as against the GTUC.

4.4.3 Frequency of training

User training on library resources should be a continuous activity because of the different peculiarities of library users. The participants were therefore asked to indicate the frequency at which training in the use of e-books is given by their institutions. Table 4.3 demonstrates the results received.

Table 4.3 Frequency of training

Frequency of training	UG		GTUC		Total (Net)	
	No.	%	No.	%	No.	%
Monthly	4	4.1	2	3.8	6	4
Bi-monthly	3	3.1	1	1.9	4	2.7
Once Every Semester	16	16.5	15	28.3	31	20.7
Not at all	10	10.3	5	9.4	15	10
Do not know	61	62.9	30	56.6	91	60.7
Non-response	3	3.1	0	0	3	2
Total	97	100	53	100	150	100

Source: Field data, 2018

At the UG, majority of the respondents, 61 (62.9%) said, they did not know of the frequency of training given to students as compared to 30 (56.6%) from the GTUC who also indicated to have no idea about training periods. Moreover, 16 (16.5%) from the UG confirmed receiving training once every semester as against 15 (28.3%) from the GTUC also confirming this assertion

In UG, 10 (10.3%) of the respondents said “not at all” to training frequency by their institution as opposed to 5 (9.4%) at the GTUC. Similarly, 4 (4.1%) of the respondents from the UG asserted that they received monthly training as compared to 2 (3.8%) at the GTUC. Whilst the least of the respondents 3 (3.1%) from the UG indicated bi-monthly as the frequency that they received training as against 1 (1.9%) at the GTUC. Meanwhile, 3 (3.1%) respondents did not answer that question from the UG.

In general, the above Table 4.3 shows most of the respondents that is 91 (60.7%) indicating not knowing about any training offered to the postgraduate students. Again, 31 (20.7%) of the respondents indicated to have received training once every semester as opposed to 15 (10%) who indicated not receiving any training at all. Moreover, the least 6 (4%) of the respondents said, they received monthly training whilst 4 (2.7%) affirmed being given training bi-monthly. The number of respondents who indicated to have received training being 34% at the UG as against 64% in the GTUC were more than those who indicated their training periods as 23 (22.3%) and 18 (9.5%) in the UG and the GTUC respectively. This anomaly may be due to either the respondents did not take their time to read the question well or just ticked the answer. The trend therefore, shows that both the UG and the GTUC do not have a well-planned training session for the postgraduate students in the use of the e-books in their respective institutions.

4.4.4 Reasons for using e-books

Several theories that have been used to study the acceptance and use of innovations have established that a new innovation must have certain compelling advantages over an older one, for users to adopt it, and an example is the UTAUT theory by Venkatesh et al. (2003, 2012) and the Diffusion of innovation theory by Rogers (2003). The researcher, therefore, sought from respondents to indicate their reasons for using the e-book for learning and research work and Table 4.4 presents the responses that were given. The responses overlap.

Table 4.4 Reasons for using e-books

Statement	UG		GTUC		Total (Net)	
	No.	%	No	%	No	%
Easy to use	62	63.9	40	75.5	102	68
It saves time	58	59.8	38	71.7	96	64
To support research	72	74.2	39	73.6	111	74
It is convenient to use	60	61.9	38	71.7	98	65.3
Easy to cut and paste	45	46.4	37	69.8	82	54.7
To put up with technological changes	29	29.9	37	69.8	66	44
Importance of text can be highlighted	32	33	35	66.0	67	44.7
Easily accessible 24/7	58	59.8	36	67.9	94	62.7
No print equivalent	20	20.6	11	20.7	33	22
Look out for answers to specific questions	17	17.5	18	34.0	35	23.3
To read as a recommended text	22	22.7	20	37.7	42	28
Non response	5	5.2	5	9.4	10	6.7

Source: Field Data, 2018

At the UG, majority of the respondents, 72 (74.2%) said that e-books support their research as against 39 (73.6%) at the GTUC. Meanwhile, the UG recorded 62 (63.9%) as easy to use as compared to the majority of the respondents from the GTUC of 40 (75.5%). The least among the respondents from the UG being 17 (17.5%) used e-books to look for specific answers as opposed to 18 (34%) from the GTUC whiles at the UG, 20 (20.6%) said that there was no print equivalent as against 11 (20.7%) from the GTUC.

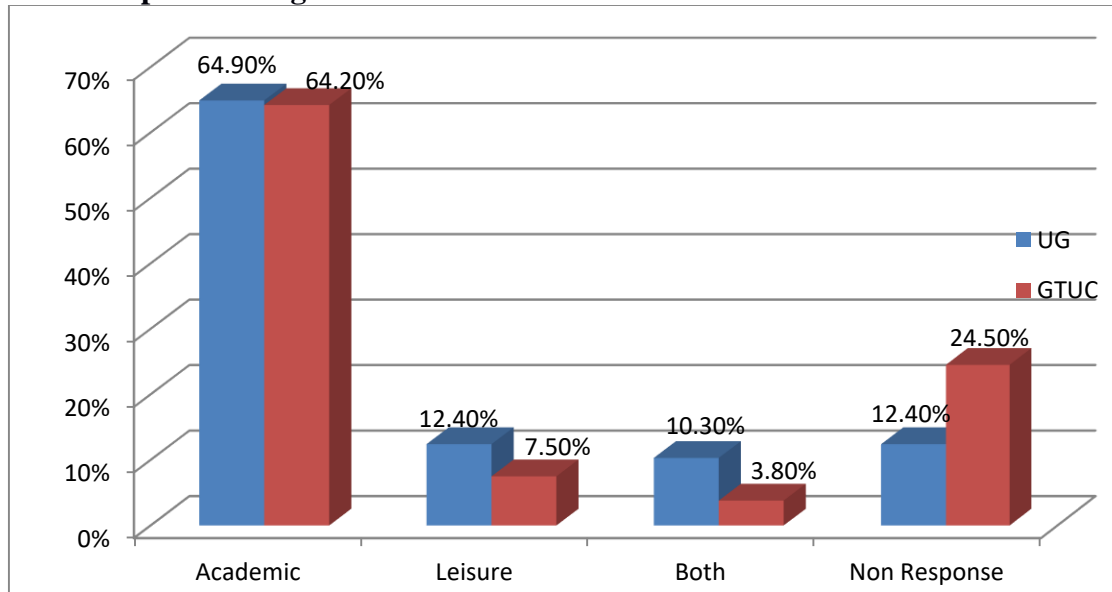
On the whole, the highest number of respondents being 111 (74%) according to Table 4.4, used e-books because it supports their research activities as compared to 102 (68%) who indicated that using e-books in learning and research was easy. Moreover, 98 (65.3%) respondents pointed out that the use of e-books in learning and research was convenient. Ninety-six 96 (64%) of the respondents stated that it saved time whilst 94 (62.7%) of the respondents indicated that it was easy to access e-books 24/7. Furthermore, 82 (54.7%) said that it was easy to cut and paste when using e-books. Moreover, 67 (44.7%) respondents asserted that it ensure highlighting of important text whereas 42 (28%) of them said, they read e-books as a recommended text. Meanwhile, 33 (22%) said that they used e-books because the print equivalent was not available. It was vividly seen from the analysis that majority of the participants accessed e-books for learning and research because it provided them with quality information that supported their research activities. This result validates some of the propositions in the UTAUT theory by Venkatesh et al. (2003, 2012) that Effort Expectancy (ease of use) and Performance Expectancy (benefit the user in executing certain tasks) are the compelling advantages that would entice users to adopt a new technology (in this case, the e-books) at the expense of an older one (printed book).

4.4.5 Purpose for using e-books

The purpose for the use of library resources to a great extent determines the uses of resources. For instance, where a particular resource is for leisure use only, few users may have time for it. In as much as there are contrary opinions on the purpose of the use of e-books, several researchers have found that students were willing to read e-books when the amount of text to be read was limited and hence this idea lends credence to the usefulness of the e-book for research work (Letchumanan and Tarmizi, 2011; Romero-Otero, Fernandez and Gimenez, 2013). In this

regard, respondents were asked to indicate the purpose for which they use e-books. The Figure below depicts their responses.

Figure 4.6 Purpose of usage



Source: Field Data, 2018

According to Figure 4.6, 63 (64.95%) responses received from the UG said that they used e-books for academic purposes as compared to 34 (64.15%) at the GTUC who were recorded for the same purpose. At the UG, 10 (10.31%) of the respondents indicated using e-books for both academic and leisure purposes as against 2 (3.77%) at the GTUC. Meanwhile, 12 (12.37%) at the UG indicated to have used e-books for leisure as opposed to 4 (7.55%) at the GTUC. Last but not the least 12 (12.37%) of the respondents from the UG and 13 (24.53%) at the GTUC failed to answer the question. This, therefore, implies that the majority of the respondents from both the UG and the GTUC had used e-books for their academic work as against leisure. The findings lend credence to that of Letchumanan and Tarmizi (2011) and Romero-Otero, Fernandez and Gimenez (2013) that most students used e-books for academic purpose.

4.5 Factors influencing the use of e-books

As stated earlier, certain compelling advantages entice students to use e-books and the same applies here in the students' choice of a particular resource. In this case, certain factors influenced students' information resources decision making such as using the e-books over a printed book. According to Romero-Otero, Fernandez and Gimenez (2013), Wahl (2018), Young (2010), Kimball et al. (2010), and Lamothe (2010) when academic libraries provide access to e-books, the rate of use is as high as or higher than printed books. This, they inferred to mean convenience, portability and ease of accessibility which ultimately influenced students' choice to use e-books.

4.5.1 Factors that influence the use of e-books

Therefore, for the researcher to ascertain what influenced the postgraduate students to use an e-book for learning and research, the following statements on the factors that influenced the users were asked.

Statements of Factors that influenced the use of e-books:

1. Aid in gaining knowledge
2. Easy to use
3. I will use the e-book if my friends are also using it
4. Institution providing technical support
5. Have an interest in e-books
6. Have the required idea to use e-books
7. Will manage to use e-books daily
8. People suggest I use e-books
9. It enables me to bookmark texts
10. Is useful in my learning and research

11. E-books are as good as printed books
12. The College should acquire both print/e-books
13. The College should acquire only print books
14. The College should acquire only e-books
15. I do not have to borrow the e-book

Table 4.5 Factors influencing the use of e-books

Statements	UG						GTUC					
		Responses						Responses				
		1	2	3	4	5		1	2	3	4	5
Aid in gaining knowledge	No	8	1	11	28	49	No	12	7	1	18	15
	%	8.2	1.0	11.4	28.9	50.5	%	22.6	13.2	1.9	34	28.3
Easy to use	No	5	7	15	26	44	No	4	13	11	17	8
	%	5.2	7.2	15.4	26.8	45.4	%	7.5	24.5	20.8	32.1	15.1
I will use the e-book, if my friends are also using it	No	27	24	24	17	5	No	9	16	19	9	-
	%	27.8	24.7	24.7	17.6	5.2	%	17	30.2	35.9	17	-
Institution providing technical support	No	7	16	22	34	18	No	1	11	12	24	5
	%	7.2	16.5	22.7	35.1	18.6	%	1.9	20.8	22.7	45.3	9.4
Have an interest in e-books	No	3	8	24	38	24	No	5	9	14	18	7
	%	3.1	8.2	24.7	39.3	24.7	%	9.4	17	26.4	34	13.2
Have the required idea to use e-books	No	3	5	26	37	26	No	1	12	17	19	4
	%	3.1	5.2	26.8	22.7	38.1	%	1.9	22.6	32.1	35.8	7.5
Will manage to use e-book daily	No	5	9	42	29	12	No	3	12	19	17	2
	%	5.2	9.3	43.3	29.9	12.4	%	5.7	22.6	35.8	32.1	3.8
People suggest I use e-books	No	17	10	36	24	10	No	5	14	14	16	4
	%	17.5	10.3	37.2	24.7	10.3	%	9.4	26.4	26.4	30.2	7.5
It enables me to bookmark texts	No	2	4	27	44	20	No	8	5	10	21	9
	%	2.1	4.1	27.9	45.4	20.6	%	15.1	9.4	18.9	39.6	17
Is useful in my learning and research	No	3	4	14	33	43	No	8	7	6	20	12
	%	3.1	4.1	14.4	34	44.3	%	15.5	13.2	11.3	37.7	22.6
E-books are as good as printed books	No	4	5	15	35	38	No	6	9	13	16	9
	%	4.1	5.2	15.5	36.1	39.2	%	11.3	17	24.5	30.2	17
The College should acquire both print/e-book	No	5	2	15	26	49	No	7	4	12	17	13
	%	5.2	2.1	15.5	26.8	50.5	%	13.2	7.5	22.7	32.1	24.5
The College should acquire only print books	No	41	28	15	6	7	No	12	19	14	4	4
	%	42.3	28.9	15.5	6.2	7.2	%	22.6	35.8	26.4	7.5	7.5
The College should acquire only e-books	No	37	28	17	6	9	No	8	18	12	10	5
	%	38.1	28.9	17.5	6.2	9.3	%	15.1	34	22.7	18.9	9.40
I do not have to borrow e-book	No	7	9	23	25	33	No	9	7	13	14	10
	%	7.2	9.3	23.7	25.8	34	%	17	13.2	24.5	26.4	18.9

Source: Field Data, 2018

Where: (1) **Strongly Disagree** (2) **Disagree** (3) **Neutral**
 (4) **Agree** (5) **Strongly Agree** N-Number R-Response

Table 4.6 Total respondents from both the UG and the GTUC on factors influencing use of e-books

Statements	Frequency					Percentage (%)				
	1	2	3	4	5	1	2	3	4	5
Aid in gaining knowledge	20	8	12	46	64	13.3	5.3	8	30.7	42.7
Easy to use	9	20	26	43	52	6	13.3	17.3	28.7	34.7
I will use the e-book, if my friends are also using it	36	40	43	26	5	24	26.7	28.7	17.3	3.3
Institution providing technical support	8	27	34	58	23	5.3	18	22.7	38.7	15.3
Have an interest in e-books	8	17	38	56	31	5.3	11.3	25.3	37.3	20.8
Have the required idea to use e-books	4	17	43	56	30	2.7	11.3	28.7	37.3	20
Will manage to use e-book daily	8	21	61	46	14	5.3	14	40.7	30.7	9.3
People suggest I use e-books	22	24	50	40	14	14.7	16	33.3	26.7	9.3
It enables me to bookmark texts	10	9	37	65	29	6.7	6	24.7	43.3	19.3
Is useful in my learning and research	11	11	20	53	55	7.3	7.3	13.3	35.3	36.8
E-books are as good as printed books	10	14	28	51	47	6.7	9.3	18.7	34	31.3
The College should acquire both print/e-books	12	6	27	43	62	8	4	18	28.7	41.3
The College should acquire only print books	53	47	29	10	11	35.3	31.3	19.3	6.8s	7.3
The College should acquire only e-books	45	46	29	16	14	30	30.7	19.3	10.7	9.3
I do not have to borrow the e-book	16	16	36	39	43	10.7	10.7	24	26	28.6

Source: Field Data, 2018 Where: (1) **Strongly Disagree** (2) **Disagree** (3) **Neutral**

(4) **Agree** (5) **Strongly Agree** N-Number R-Response

The results as shown in Table 4.6 illustrate different responses given by the respondents.

According to the Table 4.6 above, 79.4% agreed and strongly agreed from the UG as compared to 62.3% from the GTUC indicated that “aid in gaining knowledge” was a major factor influencing their choice of e-books use. In general, most of the respondents according to Table 4.6 showed a response rate of 64 (42.7%) strongly agreeing to the statement that e-books “aid in gaining knowledge” as opposed to 8 (5.3%) disagreeing to the statement. This may validate one of the propositions in the UTAUT theory by Venkatesh et al. (2003, 2012) that performance expectancy influences the adoption of a new innovation (like the e-books). According to Table 4.6, majority of the respondents (72.2%) from the UG agreed that “easy to use” influenced their choice in using e-books. Comparatively, the GTUC had a lower percentage (47.2%) but still had the majority of the respondents agreeing to “easy to use” as the factor influencing e-book use.

In all, Table 4.6 shows 52 (34.7%) of the respondents from both the UG and the GTUC strongly agreeing that e-books were “easy to use” as against 9 (6%) disagreeing to the statement. This result corroborates the findings of Wahl (2018) that convenience might be a reason for students to use e-books. This also may validate one of the UTAUT’s theory propositions by Venkatesh et al. (2012) that effort expectancy influences the acceptance of an innovation such as e-book.

Similarly, 78.3% (agreed and strongly agreed) of the respondents from the UG were also of the view that “is useful in my learning and research” constituted another factor that influenced their use of e-books as against 60.3% (agreed and strongly agreed) of the respondents from the GTUC who confirmed the UG respondents' assertion that “is useful in my learning and research” influenced their use of e-books. In total, 55 (36.8%) of the respondents from both the UG and the GTUC strongly agreed to the statement that e-book “is useful in my learning and research” as compared to 11 (7.3%) of the respondents who strongly disagreed to the statement. This result further lends credence to the findings of Letchumanan and Tarmizi (2011), Romero-Otero,

Fernandez and Gimenez (2013) and Nicholas et al. (2008) that the usefulness of the e-books in students' research activities influenced their use of e-books.

From Table 4.6, majority of the students from the UG (75.3%) held the view that e-books were as good as printed books as against (47.2%) at the GTUC. In general, 51 (31.3%) of the respondents from both the UG and the GTUC strongly agreed to the statement “e-books are as good as printed books” as against 10 (6.7%) of the respondents making contrary views

On the issue of “I do not have to borrow e-books”, 59.8% of the respondents from the UG agreed and strongly agreed to this statement as compared to 45.3% of the respondents from the GTUC also concurred to this statement. Similarly, 43 (28.6%) of the respondents in the UG and the GTUC strongly agreed to “I do not have to borrow e-book” as opposed to 16 (10.7%) respondents who were not in agreement with the statement. The response implies that the respondents can access e-books without necessarily moving to the library to borrow them which eventually saves their time and energy. This supports the findings of Yaya (2015) who observed that with e-books, library patrons can access information at any time, 24/7 and beyond the physical walls of the library and hence a user does not need to go through the formalities of borrowing.

Overall, Table 4.6 showed that 52.5% of the respondents from the UG disagreed and strongly disagreed with the statement that “I will use the e-book if my friends are using it” as compared to an equally good number 47.2% of the respondents from the GTUC who did not agree to this statement.

Meanwhile, Table 4.6 shows that, 40 (26.7%) of the total respondents from both the UG and the GTUC disagreed to the statement that “I will use the e-books if my friends are using it whilst the majority 43 (28.7%) of the total respondents from both the UG and the GTUC neither agreed nor

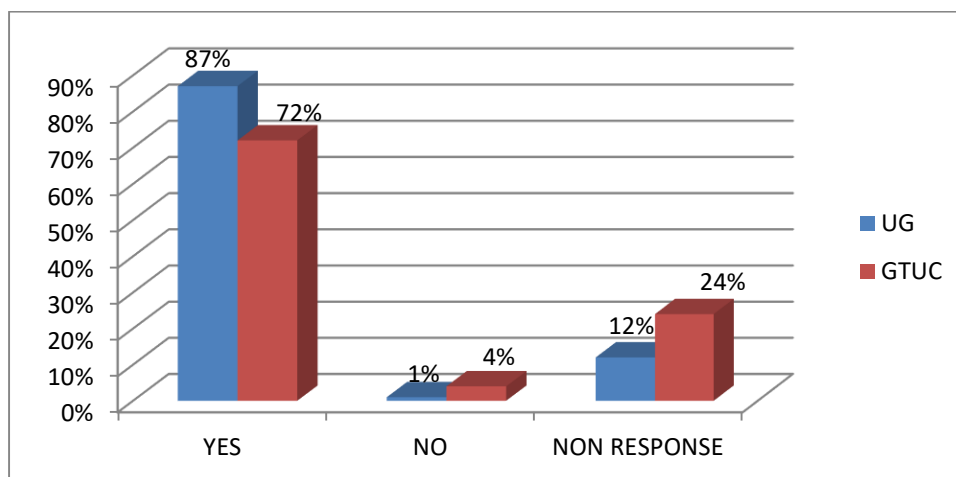
disagreed to the statement. Meanwhile, 5 (5.2%) of the respondents from the UG indicated that they would use the e-books, only if their friends were also using them as against none from the GTUC. This result contradicts one of the propositions of the UTAUT theory by Venketash et al. (2012) that external influences (Social Influence) influenced the adoption of new innovation (e-books).

4.6 Benefits/Importance of e-books

Researchers such as Kojie (2017) have argued that e-books have not come to replace the printed book but rather as an addition. He observed further that the e-books will live “side by side” with the print book into the unforeseeable future. Nonetheless, the e-books offer numerous benefits over the print books. One widely advocated benefit of the e-books is that it can be accessed without the user necessarily going to the library provided the user has the necessary tools to work with. In line with this, the researcher asked the postgraduate students to indicate the benefits and the importance of using an e-book and the following responses were provided by the respondents. The results have been illustrated in Figure 4.7.

Figure 4.7 Benefits/Importance derived from using an e-book

Figure 4.6 Benefits/Importance derived from using an e-book



Source: Field Data, 2018

The highest number of respondents as depicted in Figure 4.7 from the UG 84 (87%) as compared to 38 (72%) from the GTUC stated that using e-books had been beneficial to their learning and research work. However, 1 (1.0%) from the UG as against 2 (4%) from the GTUC had indicated that e-books have neither benefited them nor is important to them. In the same vein, 12 (12%) of the respondents from the UG failed to respond to the query as opposed to 13 (24%) from the GTUC

In total, the highest respondents from both the UG and the GTUC being 122 (81.3%) stated that e-books have benefited them in their learning and research work as opposed to 3 (2%) of the respondents who did not see any benefit of the e-books. This means that e-books have benefited the students in their learning and research work. E-books are equally important as the printed book to the postgraduate students. This finding lends credence to the findings contained in the University of Leicester Students' Union Annual Report (2014) which stated that majority (that is 60%) of the respondents deemed e-books to be “very useful” to their learning.

4.6.1 The impact e-books have on learning and research

The impact of e-books on learning and research activities of students has a bearing on the students' continuous usage of e-books. When the impact of e-books on students' learning and research is enormous, there is a high probability that students will continue to use the new technology and the other way round. Therefore the researcher asked a question on the impact of e-books on their learning and research, and the following responses were received as found in the Table below.

Table 4.7 *The impact e-books have had on their learning and research*

Statement	UG		GTUC		Total (Net)	
	No	%	No	%	No	%
It enables me to retrieve current information	77	79.4	39	73.6	116	77.3
I can retrieve more information	80	82.5	40	75.5	120	80
I can retrieve materials that the print format is not available	71	73.2	38	71.7	109	72.7
I can access more information simultaneously	72	74.2	39	73.61	111	74
I can download more information	72	74.2	40	75.5	112	74.7
Non response	5	5.2	3	5.7	8	5.3

Source: Field Data, 2018

The responses received from the respondents on the impact on students' learning and research was as follows: Table 4.7 shows that the responses overlap

At the UG, the highest number of the respondents 80 (82.5%) stated that they could retrieve more information as compared to 40 (75.5%) from the GTUC. Seventy-two 72 (74.2%) from the UG indicated that they could download more information as against 40 (75.5%) from the GTUC. Moreover, 77 (79.4%) of the respondents from the UG mentioned that they could retrieve current information as compared to 39 (73.6%) from the GTUC. A sizable number of the respondents 72 (74.2%) from the UG as compared to 39 (73.6%) from the GTUC stated that they could access more information simultaneously. However, 71 (73.2%) of the respondents from the UG confirmed retrieving materials that did not have a print format as compared to 38 (71.7%) from the GTUC. Meanwhile, 5 (5.2%) from the UG and 3 (5.7%) from the GTUC did not answer the question.

In general, 120 (80%) of the respondents said that they “could retrieve more information”, One hundred and sixteen 116 (77.3%) of the respondents indicated that “it enables them to retrieve current information” for their academic activities. Additionally, 112 (74.7%) stated that “I can download more information” whereas 111 (74%) stated that “I can access more information simultaneously”. Moreover, 109 (72.7%) asserted that they could retrieve materials that did not have print format.

4.6.2 The usefulness of the e-book to learning and research

The e-book usefulness to learning and research was also sought by the researcher and the responses recorded are depicted in Table 4.8.

Table 4.8 Usefulness of the e-book

Statement	UG		GTUC		Total (Net)	
	No.	%	No.	%	No.	%
It is convenient to scroll up and down	25	25.8	4	7.5	29	19.3
It is easy to find relevant information	30	30.9	25	47.2	55	36.7
The font size is easy to read	7	7.2	1	1.9	8	5.3
The screen is clear to read	3	3.1	1	1.9	4	2.7
I find e-books useful to my learning/ research	17	17.5	9	17	26	17.3
Non-response	15	15.5	13	24.5	28	18.7
Total	97	100.0	53	100	150	100

Source: Field Data, 2018

At the UG, some of the respondents being 30 (30.9%) indicated using e-books is easy because it helps them to find relevant information as compared to 25 (47.2%) at the GTUC. However, 15

(15.5%) of the respondents from the UG as against 13 (24.5%) from the GTUC did not answer the question.

According to Table 4.8 above, the total highest respondents from both the UG and the GTUC was 55 (36.7%) who said that they had used the e-books to find relevant information for their learning and research as opposed to 4 (2.7%) of the respondents who were comfortable reading from the screen.

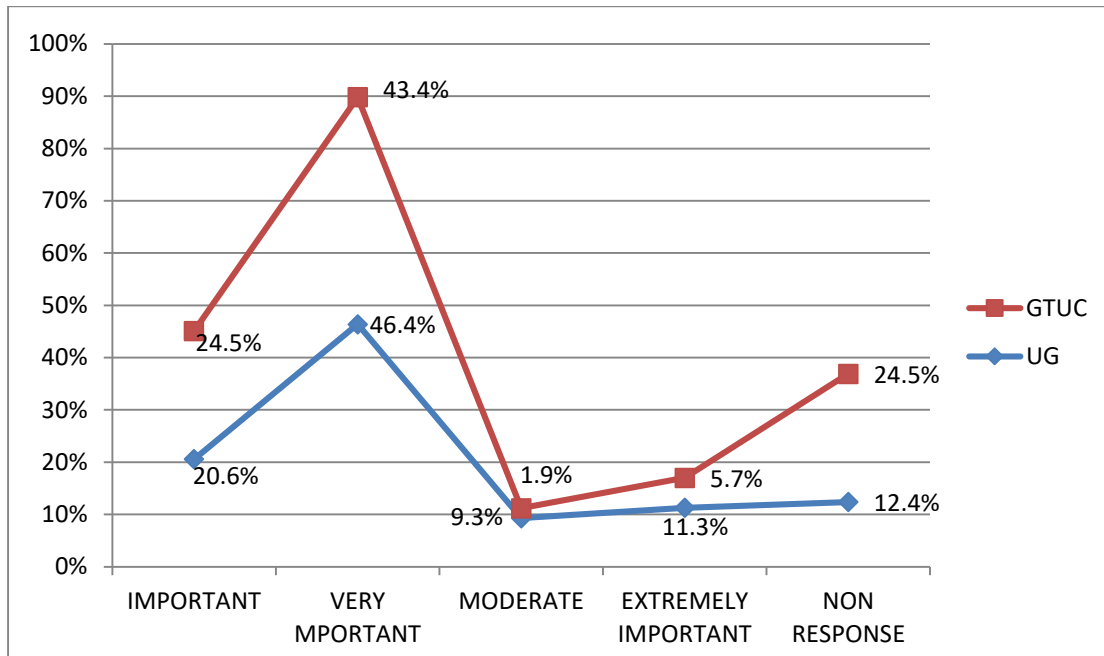
4.7 Perception and attitude towards the use of e-books

Users' perception and attitude towards a library resource go a long way to determine the use of that resource. Where library users hold a positive perception and attitude towards a library resource like an e-book, there is a high propensity that it will be put to maximum use. Arthur (2001) cited in Embong et al. (2012) studied online Internet users and posits that those who frequent the Internet rated e-books positively and therefore they tended to use e-books a lot.

Figure 4.8 Perception and attitude towards the use of e-books

Perception and the attitude towards the use of e-books were also sought by the researcher and the following results were recorded and have been presented in Figure 4.8.

Figure 4.8 Perception and attitude towards the use of e-books



Source: Field Data, 2018

At the UG, the highest number of respondents of 45 (46.4%) as against 23 (43.4%) at the GTUC had said that the utilization of e-books by the postgraduate students had been found to be very important to their learning and research work. Again, a sizable number of the respondents being 20 (20.6%) from the UG as against 13 (24.5%) from the GTUC had said that using e-books was important to their learning and research whereas 11 (11.3%) from the UG viewed using e-books for learning and research as extremely important as against 3 (5.7%) from the GTUC. However, 12 (12.4%) of the respondents from the UG as compared to 13 (24.5%) from the GTUC did not answer the query.

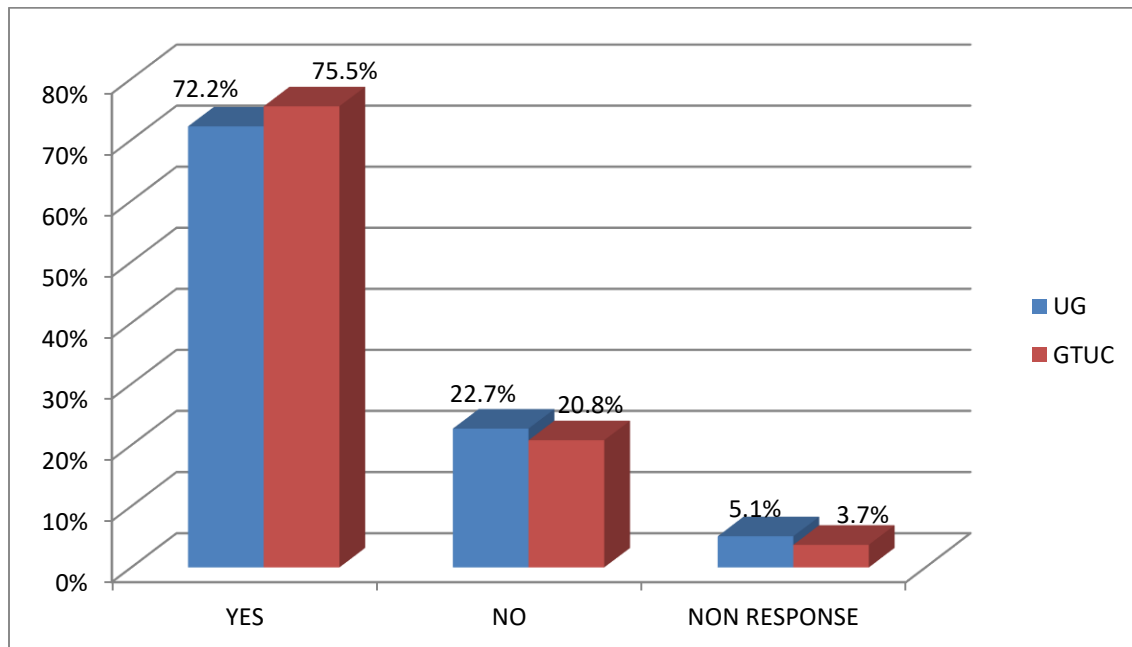
As depicted in Figure 4.7, the majority of the respondents 68 (45.3%) from both the UG and the GTUC indicated that the use of the e-books for learning and research was very important as against 10 (6.7%) who indicated using the e-books was moderate. The outcome shows that the

use of e-books for learning and research is very necessary to every postgraduate student if the individual wants to do a good job. This finding, therefore, validates the observation made by Arthur (2001 cited in Embong et al., 2012) that online Internet users considered e-books important.

4.7.1 E-book provided by the institution meeting research requirements

The central focus of most academic libraries is to provide services that meet the needs and expectations of its users. Without this, most libraries would find it difficult to attract users to their facilities. Hence, users' satisfaction with their libraries' information resources is at the top of most libraries' agenda. It is against this background that the researcher sought from the respondents whether the e-books provided by their institution's libraries' were meeting their learning and research requirements and the following responses were recorded which have been presented in Figure 4.9.

Figure 4.9 E-books meeting learning and research requirements



Source: Field Data, 2018

At the UG, the highest number of respondents which is 70 constituting (72%) was satisfied with the e-books provided by their institution as compared to 40 (75%) at the GTUC. Meanwhile, 5 (5%) and 2 (4%) from both the UG and the GTUC failed to respond to the question.

Overall, the highest number of respondents 110 representing 73.3% said that the e-book provided by their institution met their learning and research requirements as opposed to 33 (22%) of the respondents who stated that the e-book provided by their institution did not meet their academic work requirements. This finding is similar to the findings of Anuradha and Usha (2006) who reported that three quarters (35%) of the respondents were satisfied with the e-books provided by a research library in India.

4.7.2 Features of the e-book

The packaging of an item is one of the factors that enable one to make a decision about the use of the commodity of which e-book is of no exception. The printed book has some features that enable one to go for it just as the e-books. The researcher, therefore, sought the views of the respondents on what accounted for the utilization of the e-books and the outcomes have been presented in Table 4.9

Table 4.9 Features of the e-book that encourage its use

Response	UG		GTUC		Total (Net)	
	No.	%	No	%	No	%
It enables me to have my own collection	14	14.4	8	15.1	22	14.7
It allows me to have instant access to contents	25	25.8	12	22.6	37	24.7
It enables me to bookmark pages	10	10.3	10	18.9	20	13.3
It is a mobile	33	34.0	10	18.9	43	28.7
Others (Pls specify)	3	3.1	-	-	3	1.9
Non-response	12	12.4	13	24.5	25	16.7
Total	97	100.0	53	100	150	100.0

Source: Field Data, 2018

The results recorded in Table 4.9 showed various responses from the respondents. At the UG, most of the respondents 33 (34.0%) said that they used e-books because it could be accessed anywhere as against 10 (18.9%) from the GTUC. Additionally, 25 (25.8%) of the respondents from the UG also stated that e-books enabled them to have instant access to the contents of the information as compared to 12 (22.6%) at the GTUC. Moreover, 14 (14.4%) of the respondents from the UG said e-books enabled them to have their collection of stock of books as opposed to 8 (15.1%) from the GTUC. Meanwhile, 10 (10.3%) responses received from the UG indicated that e-books allowed them to bookmark pages as compared to 10 (18.9%) at the GTUC. However, 15 (15.5%) of the respondents from the UG did not give any response to the question as against 13 (24.5%) from the GTUC.

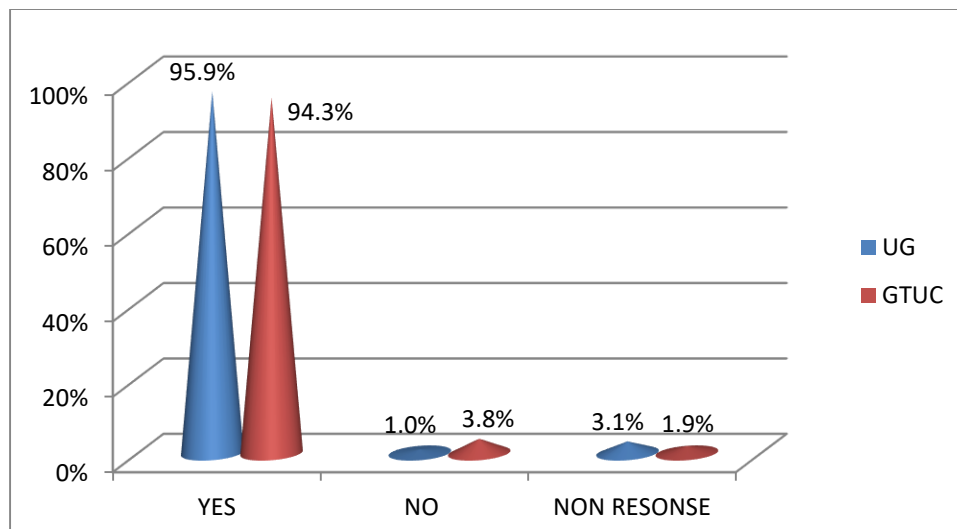
The total highest respondents of 43 (28.7%) from both the UG and the GTUC as shown in Table 4.9 indicated that the feature the postgraduate students' found on the e-book that motivated them

to use it was that it could be access anywhere (mobility). Thirty-seven 37 (24.7%) of the respondents indicated this: “it enabled me to have instant access to contents of the information”, and 22 (14.7%) of the respondents from the two tertiary institutions said e-books enabled them to have their collection. Whilst 20 (13.3%) of the respondents from both institutions stated that using e-books enabled them to bookmark pages.

4.7.3 Do you intend to use an e-book in the future?

Students' intentions for the future use of e-books to a large extent indicate whether academic libraries would continue to spend limited resources to acquire them. On this basis, the respondents' views were sought by the researcher whether they would be willing to use e-books in the future and this is what was recorded as shown in Figure 4.10

Figure 4.10 Intention to use e-books in the future



Source: Field Study, 2018

In the UG, most of the respondents 93 (96%) as compared to 50 (94%) in the GTUC have the intention of using e-books in the future as against 1 (1.0%) and 2 (4%) respondents from both institutions who said they have no intention of using the e-book in the near future. Meanwhile, 3 (3%) against 1 (2%) from both the UG and the GTUC respectively did not give any response to

the query. Generally, majority of the respondents (95.3%) indicated that the postgraduate students have the intention of using e-books in the future. This implies that the postgraduate students have the intention of using the e-books in the future for their learning and research work. This finding confirms the findings of Anuradha and Usha (2006) who reported that a good number of respondents (80.19%) indicated that they would want to try and use e-books in the future.

4.8 Challenges in the use of e-books

The use of every technology comes with its challenges and e-books are of no exception. The use of e-books has to do with some tools that enable one to have access to the content of the e-books. Due to this, the respondents' views were sought on the challenges they had faced when using an e-book. The responses recorded are depicted in Table 4.10, and they overlap.

Table 4.10 Challenges faced by respondents in the use of e-books

Statement	UG		GTUC		Total (Net)	
	No	%	No	%	No	%
Internet is slow	82	84.5	40	75.5	122	81.3
Difficult to sift through several titles available	52	53.6	40	75.5	92	61.3
Difficult to read from the screen	36	37.1	38	71.7	74	49.3
Pages take too long to navigate	46	47.4	39	73.6	85	56.7
Lack of sufficient knowledge in the use of e-book	34	35	32	60.4	66	44
Could not get off campus access	47	48.4	26	49.1	73	48.7
Lack of choice of e-book titles important to my research/learning	28	28.9	19	35.8	47	31.3
Low internet Bandwidth	35	36.1	17	32.1	52	34.7
Password limitation	41	42.2	3	5.7	44	29.3
Lack of quality content of information	10	10.3	3	5.7	13	8.7
Lack of interest in the use of e-books	9	9.3	2	3.8	11	7.3
Power outage	31	32	13	24.5	44	29.3
Difficult to discover e-books	12	12.4	8	15.1	20	13.3
Non response	3	3.1	7	13.2	10	6.7

Source: Field Data, 2018

According to Table 4.10 the majority of the respondents 82 (84.5%) at the UG as compared to 40 (75.5%) from the GTUC were of the view that lack of stable Internet was their challenge. Moreover, at the UG 47 (48.4%) of the respondents as against 26 (49.1%) from the GTUC indicated not having access to the e-books when they were out of campus. A little over half of the respondents which is 52 (53.6%) from the UG said that they found it difficult to sift through several titles that were available as opposed to the majority of the respondents of 40 (75.5%) from the GTUC. Similarly, 36 (37.1%) of the respondents from the UG said that they found it difficult to read from the screen as against a sizable number of 38 (71.7%) from the GTUC.

Meanwhile, 41 (42.2%) of the respondents from the UG mentioned password limitations as their challenge as opposed to 3 (5.7%) from the GTUC whereas 12 (12.4%) from the UG as compared to 8 (15.1%) from the GTUC said they found it difficult to discover the e-books.

In general, the following were recorded: low Internet, 122 (81.3%); difficult to sift through several titles available, 92 (61.3%); no off-campus access to e-books, 73 (48.7%); pages taking too long to pop up, 85 (56.7%); difficult to read from the screen, 74 (49.3%); low Internet bandwidth, 52 (34.7%); password limitation, 44 (29.3%); lack of interest in e-books, 11 (7.3%); Non response 10 (6.7%) were the challenges faced by the postgraduate students from both the UG and the GTUC.

4.9 Findings and the Theoretical Framework

In relating the findings to the Unified theory of acceptance and use of technology, Venkatesh et al. (2003, 2012) indicated that an individual's BI to adopt and use a new technology is affected by PE, EE, SI, and FC. Conditions and the influence of these factors are affected by sex, age, and experience of the individual, with social influence being again affected by voluntariness of use. In this case, the Behavioural Intention (BI) to use e-books by the students from the two universities that provided e-books were influenced by the usefulness or benefits of the use of e-books of which 122 representing 81.3% of the overall respondents indicated that using e-books for learning and research has been beneficial to their academic work as found in the study and this is validated by the theory PE. Effort Expectancy (EE) was also prevailing as 102 (68%) of the respondents from both the UG and the GTUC indicated that it was easy to use e-books. Social Influence (SI) "I will use the e-book, if my friends are using" was however not supported by the findings of this study as more than half of the respondents from both institutions 76 (50.7%) were not influenced by their colleagues or peers recommending the use of e-books to

them. Facilitating Condition (FC) was also prevalent as the two institutions involved in the study were found to have been providing technical support to the use of e-books to their students (ie 81, 54%) as indicated by the respondents in the study as a factor that motivated them to use the e-books.

CHAPTER FIVE

DISCUSSION OF MAJOR FINDINGS

5.1 Introduction

This chapter discusses the major findings of the study about the research objectives and the existing literature. Discussions are presented under the following thematic areas: level of awareness and usage of electronic-books, factors influencing the use of e-books, importance or benefits of the use of e-books, perception and attitudes towards the use of e-books, and challenges militating against the use of e-books among post-graduate students at the UG and the GTUC.

5.2 Awareness and use of e-books

The study found that majority of the surveyed post-graduate students of the UG, 99% as compared to 100% from the GTUC knew what an e-book was. Again, 86.6% of the respondents from the UG were aware of the existence of e-books in their institution as compared to 94.3% at the GTUC. The main reason for the existence of information resources such as e-books and electronic scholarly databases are for users to make maximum use of these information resources, and it is a widely held view in the literature that lack of awareness of any library resource leads to low usage of that resource. Awareness is, therefore, a major driving factor for the use of e-books. Shelburne (2009) stated that when clients are not made aware of the availability of e-books in some libraries, it results in low patronage. The study found that majority of the surveyed post-graduate students of the UG and the GTUC knew what an e-book was (that is UG 99% and GTUC100%), and a large majority (that is 86.6% of the UG and 94.3% of the GTUC) of the post-graduate students were aware of their respective institutions' e-book

collection. The reasons for the high knowledge and awareness levels in both universities could be attributed to the fact that faculty could have played a major part by helping to create awareness of the use of e-books among its students, and the students could also have found out themselves due to their level of education where they were expected to explore all manner of information sources for their scholarly work. The role of faculty is greatly recognized in the promotion of the use of e-books. According to Barker (2008), the increased use of e-books is enhanced when awareness about their availability is created. This finding supports the findings of Borchert et al. (2009) who found that between 70% and 80% of students and faculty at the two Queensland Universities were aware of their respective universities' e-book collections. Also, Scullin (2015) found that about 91.82% of the 611 respondents of the University of Canterbury study were aware of the university's e-book collection. Consequently, the majority of these students had used an e-book a couple of times. Also, Folb, Wessel and Czechowski (2011) reported that 65.5% of his surveyed subjects claimed that they were knowledgeable about their institution's library e-book collection. Similarly, Wang and Bai (2016) also said that 98.4% of the respondents surveyed had knowledge of the availability of e-books whereas 93.1% actually knew what an e-book was. This finding was, however, a complete deviation from studies by Lamb (2012) who found that academics at the University of Waikato lacked awareness, competency, and confidence towards the many aspects of the e-book environment and that generally, academics were not making use of e-books to their full potential. Corlett-Rivera and Hackman (2014) also reported that many users at the University of Maryland lacked awareness of the library's e-book collection and further patron education was necessary to improve usage.

Furthermore, 37.1% of the respondents from the UG in this study indicated that they had acquired their knowledge of e-books during the library's orientation as against 35.8% from the

GTUC. Additionally, 23.7% respondents from the UG indicated acquiring their knowledge of e-books from the library's website as compared to 18.9% at the GTUC. Similarly, 17.5% post-graduates surveyed from the UG said they had their knowledge of e-books through colleagues as opposed to 11.3% from the GTUC. Moreover, 6.2% of the respondents indicated getting knowledge about e-books through friends as against 3.8% from the GTUC. Furthermore, 3.1% of the respondents from the UG said they read about e-books from their institutions' notice board as opposed to 5.7% from the GTUC. On the whole 2.1% of the post-graduate students' studied from the UG indicated knowing of e-books through library staff as opposed to 17% from the GTUC. This meant that both institutions adopted proactive strategies to create awareness about the availability of e-books. With the numerous platforms adopted, it was not surprising that a significant number of the students knew about e-books availability in their respective institutions. This finding resonates with that of Mwanzu (2014) who found that majority of the study respondents knew about the existence of e-books in the United States International University-Africa (USIU-A) library because the library had put in place awareness strategies such as library staff frequently creating awareness about e-books, the library's OPAC has links that redirect users to e-books, and faculty actively taking part in the promotion of the use of e-books among its students.

Besides, the investigation revealed that the majority of the respondents agreed that e-books were well-publicized in their institutions. This revelation was not surprising, as the two libraries involved in this study are well organized and therefore one would expect that they carry out maximum publicity about their varied information sources since publicity plays a key role in awareness creation. Also, since these libraries pay huge sums of money to acquire different information resources, it would be expected that a lot also would be spent in publicizing these

resources. In the views of Lamb (2012); Slater (2010); and Corlett-Rivera and Hackman (2014) carrying out user education, publicity, and raising awareness are fundamental strategies to increasing e-book knowledge and use.

5.2.1 Use of e-books

Maximum utilization is the ultimate aim for the acquisition of library resources. Libraries cannot continue to justify their budget allocations if resources provided are not put to maximum use. On this basis, the study found that e-books use at the UG being 87.6% as compared to 75.5% at the GTUC was very high. Meanwhile, the percentage found in the awareness was a little less than the usage at the UG. It was quite encouraging because as earlier pointed out, the students' knowledge and awareness of e-book collection in their respective institutions were found to be high, and therefore one expected that ultimately usage would also be high. The high usage rate, therefore, goes further to validate the libraries decisions to spend limited resources in the acquisition of content in this format. Bentil (2011) argues that when library patrons are made aware of certain library services, it results in patronizing and utilizing those services which otherwise would not have been utilized had the patrons or the target group not been made aware of them. This finding supports the findings of Nicholas et al. (2008) who observed that e-book penetration was very strong in the UK. He further found that a good number of students were already using e-books in connection with their scholarly work. Also, Scullin (2015) found that about 91.82% of the 611 respondents of the University of Canterbury study were aware of the university's e-book collection. Consequently, the majority of these students had utilized an e-book a couple of times. Mwanzu (2014) reported that a significant number of students who knew about the University's e-books collection were also found to be making good use of them. Similarly, Ahmad and Brogan (2012) found that majority of the university population made use

of e-books, and they reported further that about 71% of the users were browsing and about 29% accounted for the reading of e-books. Further, other researchers indicate that, overall, when academic libraries provide access to e-books, students' use of them is at a rate equal to or higher than that of the printed books (Bailey, 2006; Christianson and Aucoin, 2005; Littman and Connaway, 2004; Rose and Li, 2007; Safley, 2006; Walton, 2007). On the contrary, Cohen (2019) studied the e-book usage of college libraries and reported that most academic libraries all over the world are experiencing a decline in the usage of e-books. Similarly, Akuffo and Budu (2019) undertook a study on the use of electronic resources by students and reported that the postgraduate students studied knew of e-resources in their institution.

On the level of training received among respondents in both institutions, responses were found to be varied. It was however surprising that majority of the UG respondents being 66% claimed that they never received any training on the use of e-books. This was in sharp contrast to respondents at the GTUC where it was revealed that as much as 64.2% received training on e-books use. Also, on the frequency of training, varied responses were revealed. It was again worrying that the majority of the respondents at the UG being 62.9% claimed that they did not know of any training periods. Only a little over one fourth indicated that they received training once every semester as against 56.6% at the GTUC who were not aware of training periods. It was unfortunate that the majority of the respondents in the two institutions claimed they did not receive enough training despite the importance of training in the use of new technology such as the e-book. The number who provided responses for the frequency of training was less than those who indicated to have received training. This finding contradicts the results of Islam, Alam, and Sultana (2011) who reported "that lack of training, orientation programmes, computer skills as well as awareness accounted for the low usage of e-resources at Dhaka University library".

This finding also falls in line with Akuffo and Budu (2019) who reported in their study that with the competencies of the postgraduate students studied, they lack adequate training skills as well as institutional support that should be provided by the institution in the use of the e-books. This finding again contravened one of the major propositions of the UTAUT theory of FC as advanced by Venkatesh et al. (2003, 2012) that users anticipate that sufficient technical support will be provided for when an institution is adopting a new technology.

5.3 Factors influencing the use of e-books

From Venkatesh et al.'s (2003, 2012) point of view, “ease of use” (Effort Expectancy) and Social Influence (SI) are major forces influencing the use of new technology such as the e-book and when individuals see that technology is easy to use or is perceived to be easy to use, there is a high probability that they may use that technology. In the same vein, individuals are easily influenced by their peers or colleagues when their peers convince them to use or adopt new technology. Davis et al. (1989) termed the former as “Perceived Ease of Use”.

It emerged from the analyzed data that, a large number of the respondents from the UG being 79.4% (agreed and strongly agreed) that “Aid in gaining knowledge” was a major factor influencing their decisions to use e-books as compared to 62.3% at the GTUC. This is in line with the findings of Shin (2010) who reports that when users appear to find value in using e-books for specific purposes such as data and information retrieval and research, it entices them in their choice to use e-books. Similarly, Walton (2013) observes that individuals would often choose an innovation when that innovation (e-books) has a compelling advantage over the old one (print book). Walton, therefore, found that “used for research and convenience” were the compelling factors that influenced students' intentions to use e-books. Again this finding resonates with the second construct of the UTAUT theory by Venkatesh et al. (2003, 2012) with

the proposition that PE (aid in gaining knowledge) influences behaviour to use or intend to use new technology. This finding also supports the study by Oliveira, Faria and Thomas (2014) who reported in a study that PE influenced people's behaviour to adopt mobile banking (m-banking). Further, this finding goes to support the findings of Gao and Deng (2012) who found that PE and EE had a significant positive impact on BI and use behaviour of students' e-books usage in China.

The majority of the surveyed respondents from the UG which is 72.2% also held the view that "Ease of use" constituted another factor influencing their decisions to use e-books as against 47.2% from the GTUC. This concurs with the findings of DeSouza et al. (2004) and Reener (2008) cited in Shin (2010) who reported that the "impact of the usefulness of an innovation' (e-book) and "ease of use" of that innovation has a positive correlation on its usage. This finding further validates the findings of Teo et al. (2015) who revealed that EE (that is ease of use) positively influenced the adoption and utilization of m-payment system among Malaysian students. Further, Smith (2012) concluded in his study that convenience might be a reason that influences students' use of e-books. Furthermore, some respondents of the two institutions again claimed that their peers influenced their decisions to use e-books as one-fourth of the respondents stated that "I will use e-books if my friends are using them". This finding bear resemblance with the finding of Jaradat and Rababaa (2013) who reportedly found that SI had a positive influence on users BI to adopt and use m-commerce in Jordan University, Saudi Arabia. In other studies, Yu (2012), Jawad and Hassan (2015) noted that SI had a positive influence on people's intention to accept e-resources. Also, Shin (2010) identified the effect of an external influence such as the influence from peers and colleague students as major factors on students' continuance intention of e-book usage. Similarly, Gao and Deng's (2012) study of e-books uses

among Chinese students reported that social influence had a positive effect on the students' BI to use e-books. Other elements recognized by the participants from the two institutions that attract students to turn more to e-books were:

- people suggest I use e-books
- the e-book is useful in my learning and research
- e-books are as good as print books
- I do not have to borrow an e-book

Yaya (2015) argued that with e-books, library patrons can access information at any time, 24/7 and beyond the physical walls of the library and hence a user does not need to go through the formalities of borrowing. He concludes that this factor has endeared the e-book to the modern student. Shelburne (2009) reports that users considered e-books to be better than print books in terms of space and storage, accessibility 24/7, the currency of information and availability at any location. Similarly, Fyfe (2014) confirmed that faculty and their students cite more e-book titles because the content is easily accessible and convenient. This finding also corroborates the study by Nicholas et al. (2008) who observed that one major factor that influenced students' decisions to use e-books was that e-books were considered helpful in their scholarly work. Healey (2002, cited in Letchumanan, 2010) correspondingly found that faculty members and most graduate students were turning to and using e-books because they found e-books to be helpful in their teaching, learning and research. Further, Roesnita and Zainab (2005) in their study on the pattern of e-book usage amongst undergraduate students in Malaysia found that user-friendliness was a major influence in the use of e-books.

5.4 Benefits/importance of the use of e-books

The study found that 87% of the respondents from the UG said that using e-books was beneficial

to their learning and research as compared to 72% from the GTUC. However, the least 1.0% from the UG had indicated that e-books have neither benefited them nor is important to their learning and research as against 4% from the GTUC. This was not quite surprising as the majority of the students had earlier claimed to be knowledgeable about e-book availability in their respective institutions and usage of e-books was also found to be high. It was therefore expected that relevant e-book titles have been provided, hence the high usage level. It also showed that the students were making optimum use of their institution's e-book collection in their scholarly work. This finding is in line with the findings of Vasileious, Hartley and Rowley (2012) who observed that e-books have become a central element of the information experience among the academic population including faculty, undergraduate students and post-graduate students. The finding again resonates with the study by Worden (2014) who reports that the majority of the surveyed students claimed that they had used e-books for every assignment throughout one academic year. This, Worden inferred further that the students might have found the e-books to be very beneficial hence their continual reference.

Similarly, the University of Leicester Students' Union Annual Report (2014) found that majority (that is 60%) of the respondents deemed e-books to be “very useful” to their learning. E-books are not only becoming widely accepted but are also embedded in students' expectations of course provision. E-books offer enormous benefits and advantages over the print book, although there are contrary views about the value of the academic e-book. Advocates of the benefits of the e-book such as Lemken (1999) asserted that the technology should “fill the gulf between printed and digital information”. According to Fyfe (2014), e-books are at the verge of becoming the mainstream tools in learning, teaching, and research. E-books offer significant opportunities to enhance the richness and effectiveness of education across all spheres and to deliver advantages

to institutions. Woody, Daniel, and Baker (2010) stated that the importance of e-books has compelled most publishers now to offer e-book alternative for most of their print textbooks. It is against this background that libraries have quickly recognized the numerous importance of e-books and have made e-books as part of their collection development policies (Payare, 2014).

Additionally, most of the respondents from the UG which is 82.5% further stressed that “I can retrieve more information” as compared to 75.5% from the GTUC. Meanwhile, 79.4% of the respondents from the UG indicated that “It enables me to retrieve current information” as compared to 73.6% from the GTUC. However, respondents from the two institutions further identified other benefits and usefulness of the use of e-books as follows:

- I can download more information
- I can access more information simultaneously
- I can retrieve materials that do not have the print format,
- it is easy to find relevant information
- it is convenient to scroll up and down
- the font size is easy to read
- I find e-books useful for my learning and research
- the screen is clear to read

This finding concur with that of Romero-Otero, Fernandez & Gimerez (2013) who stated that convenience, economy, portability and materials being up-to-date are some of the benefits associated with e-books. In addition, Mwanzu’s (2014) study on user acceptance of e-books in Nairobi, Kenya found that students favour e-books to print books because some e-books databases have functionalities such as reference citing, and that e-books are much faster to browse through pages than their print counterparts and also their multiple functions of

simultaneous access, flexible search, remote access, and friendly interface were other benefits identified to be associated with e-books. Lamb (2012) states that “ability to download a whole book or chapter for later use, ability to search full-text of items, ability to annotate, and bookmark or make notes were also identified by respondents as benefits associated with the e-book. (Malama, Landoni, and Wilson, 2004; Picton, 2014) found that users regard the layout of the e-book on the screen, internet and ease of navigation through a clear user interface as strong motivating factors of the e-book. Beyond that, this finding is an incomplete deviation from the findings of Yaya (2015) who identified perceived benefits of the use of e-books as the accessibility of information, time- saving, enhanced reading habits, cost-effectiveness, space conservation, and portability. Similarly, Fyfe (2014) contends that one major benefit of the e-book in the library environment is to solve the problem of high demand on limited titles of print books. With the purchase of a single e-book title, it can serve several thousands of users at the same time unlike waiting for a book to be returned before other users can have access to it.

5.5 Perception and attitudes towards the use of e-books

Majority of the respondents from the UG of 46.4% as against 43.4% from the GTUC held the perception that the use of e-books was very important in their learning and research work. Perception is an important determinant for the use of new technology such as the e-book. According to Rogers (2005), “perception is critical in the adoption of an innovation, and that individuals or group of people would only adopt an innovation only if they perceived that innovation to be better than the existing one”. However, this was demonstrated by most of the surveyed students, the perception was relatively not as strong as the findings of a study by University of Leicester Students Union Annual Report (2014) which indicates that 60% of respondents considered e-books to be “very useful” in their learning and research. Similarly,

Arthur (2001, cited in Embong et al., 2012) studied on-line Internet users and posits that those who frequent the Internet rated e-books positively. This finding also supports the study by Healey (2002, cited in Letchumanan, 2010) who carried out qualitative study involving faculty members, undergraduate as well as graduate students on where they go for information and observed that e-books were considered to be very central to the respondents' learning, teaching and research work. More so, Wells and Sallenbach (2015) observed that e-resources have become increasingly central to the acquisition process and increasingly accepted by clients and academics since the online population of most universities (that is distance learners) is gradually increasing.

The study further revealed that majority of the respondents from the UG which is 72% as compared to 75% from the GTUC agreed that the e-books provided by their respective libraries were meeting their learning and research requirements. This was, however, to be expected taken into cognizance the level of standards attached to scholarly work at both universities, in that, much attention is being paid to the libraries to meet the learning and research requirements of their students. This finding is in line with the findings of Anuradha and Usha (2006) who reported that one-third of the respondents were satisfied with their library's e-book collection. The finding also goes with that of Al et al. (2010) who indicated that 90% of students from Hacettepe University, Turkey were satisfied with the e-books provided by the library.

On the features of e-books that motivate respondents to utilize e-books, the study revealed that majority of the respondents from the UG being 34% as opposed to 18.9% from the GTUC identified e-books as resources that can be accessed anywhere (mobility) as a major factor that motivated them to the use. This result corroborates with the findings of (Lam et al. 2008; Young, 2010; Smith, 2012) which indicates that access to more reading time (that is one can still read

during travel), remote access, potential links to allied multimedia resources, and portable resources (that is handheld devices that can hold many books) were some of the features that endeared students to e-book usage. Yaya (2015) posits that e-books are portable, as they can be carried anywhere and accessed as well, thereby removing the barrier of limited access, and thus e-books are available to its users 24/7. Also Anuradha and Usha (2006), report that mobility was seen as a major feature by the majority of respondents that motivated them to the use of e-books. In addition, 25.8% of the respondents from the UG as compared to 22.6% from the GTUC held the view that e-books allow them to have instant access to contents of the e-books. Beyond mobility, respondents from both institutions also identified other features such as, “it enables me to have my own collection”, and “it enables me to bookmark pages” as other motivating factors. These identified features bear resemblance with the study by (Shiratuddin et al. 2003; Young, 2010; Smith, 2012) who noted that students’ ability to build their personalized digital libraries with the new e-book technology (since they can easily download relevant course textbooks onto their hand-held electronic devices such as e-readers as well as smartphones) was one major feature of the e-book that motivated postgraduate students to use e-books. Also, Anuradha and Usha (2006) report that “ability to bookmark pages, instant access to content, multimedia feature, ability to maintain my collection, and ability to personalize the look and feel of e-books” were listed as some features that encouraged users to utilize e-books. Furthermore, the study revealed that majority of the respondents from the UG being 96% as compared to 94% from the GTUC indicated their willingness to use e-books in the future. This revelation was however not surprising since the study concentrated on postgraduate students whose demand for information is incessant. Majority of the postgraduate students may have the intention of becoming lecturers and they are supposed to exhibit great knowledge and usage in a

variety of information sources. This indication to a large extent demonstrates respondents' tolerance and acceptability level of the innovation. This finding is similar to the observation made by Scott (2014) that, with the digitization of text and increased access to the Internet, the e-book has "come of age" as an acceptable format for publishers, readers, and librarians in the library and education sector. The use of print resources is gradually falling out of favour for electronic resources in most universities and the future potential use of the e-book promises to be very high (Atkins, 2014). This finding also compares favourably with the findings of Anuradha and Usha (2006) who reported that a good number of respondents (80.19%) indicated that they would want to try and use e-books in the future.

5.6 Challenges encountered in the use of e-books

The literature has shown that several factors inhibit the use of e-books among students. Against this backdrop, the study showed that majority of the respondents from the UG which is 84.5% as against 75.5% from the GTUC identified slow Internet as a major factor impeding their quest for e-books usage. This indication could have affected respondents' usage of e-books in some particular times of their learning and research engagements, although the effect of the slow Internet was however not strong enough to negatively affect the use of e-books among the respondents as usage level was earlier found to be high. Nonetheless, one should not underestimate the potential impact of the slow Internet on the learning and research process. Gakibayo, Ikoja-Odongo and Okello-Obura (2013) in assessing the utilization of electronic resources reported that e-resources utilization by students was not only affected by inadequate computers but also lack of reliable Internet connectivity. In a similar vein, Akporhonor and Akpojotor (2016) reported that poor electricity supply, inadequate Internet connection, information overload, delays in downloading information were identified by the respondents as

some challenges impeding their utilization of electronic resources. Slow Internet connection has been a bane in the sub-region of Africa and serious attention needs to be paid to it since communication in academia now is electronic. This lends credence to Mwanzu (2014), that no access to computers, slow Internet connectivity, and inadequate power supply were seen as major impediments inhibiting the access and use of e-books among students at the United States International University-Africa Nairobi, Kenya. This finding, however, also supports the views of Gakibayo, Ikoja-Odongo and Okito-Obura (2013) who observed that slow Internet connectivity resulted in the underutilization of e-resources among students. Similarly, an equal good number of post-graduate students' surveyed from the UG 53.6% as opposed to 75.52% from the GTUC identified difficulty to sift through several available titles as a factor impeding their use of the e-books. Furthermore, other respondents at both institutions identified pages taking too long to navigate, difficulty to read from the screen, password limitations, lack of sufficient knowledge in the use of e-books, not getting off-campus access, difficulty to discover e-books, lack of interest in e-books as other factors that impeded their use of e-books. According to Woody, Daniel and Baker (2010); Jamali et al. (2009); Lam et al. (2008); and Shelburne (2009), difficulty in reading from the screen or not liking to read from the screen, and not knowing how to find e-books were identified as challenges encountered in the use of e-books among students. Tees (2010) and Anuradha and Usha (2006) observed that one frequently discussed barrier to e-books acceptance and use was the discomfort of screen reading. Chu (2003) states that "hard to read and browse" as well as little knowledge and unable to find e-books top the list of causes for not using e-books. Further, Anuradha and Usha (2006) also identified hard to read and browse and a limited number of titles as challenges that inhibit students' access and use of e-books. Also, Ahmad and Brogan (2010) report that slow Internet

connectivity, lack of off-campus access, and difficulty in screen reading for a longer duration, and password limitations are a major hindrance to e-book use among students. Again, Quan-Haase, Martin, and Schreurs (2014) in their study of e-book acceptance among Senior citizens found that lack of familiarity with digital technologies was a major barrier to their e-book use. These findings, however, contradict the views of Nicholas et al. (2008) who reported that 62% of students and 59.8% of faculty read entirely on screen the last time they used e-books and therefore they concluded that difficulty in reading from the screen was not a major challenge impeding the use of e-books among users.

5.7 Conclusion

The study revealed that majority of the post-graduate students from the UG being 99% as compared to 100% at the GTUC knew of an e-books out of which 86.6% from the UG as against 94.3% from the GTUC were highly aware of their respective institutions' e-book collection and therefore the e-books were being utilized well at the UG 87.6% as against 75.5% at the GTUC because there was enough publicity regarding the existence of the e-books. However, there was lack of adequate training on the use of e-books at the UG 66% as opposed to 35.8% at the GTUC, but this had a negligible impact on the usage of e-books as usage levels were found to be high at both institutions. Also, the study showed that respondents at the UG being 87% as compared to 72% at the GTUC considered e-books to be very beneficial in their learning and research work. As a result, the respondents from the UG being 46.4% as against 43.4% from the GTUC held a positive perception about e-books and ultimately indicated their willingness to use e-books in their future academic endeavours. Beyond this, the respondents of the study at both institutions identified ease of use, aid in gaining knowledge, e-books being useful, and e-books can be accessed anywhere as major factors that influenced their decisions to use e-books.

Furthermore, the findings showed that respondents considered slow Internet connectivity, difficulty to sift through several titles available, difficulty in reading from the screen, and absence of sufficient knowledge in the use of e-books as some of the factors impeding their use and access to e-books.

CHAPTER SIX

SUMMARY OF THE FINDINGS, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter presents a summary of the study's findings based on the objectives and conclusion emanating from the findings. It also includes recommendations made based on the findings.

6.2 Summary of the Findings

The study examined the use of e-books among post-graduate students of the UG and that of the GTUC. The investigation looked at the awareness and use of e-books, benefits of the use of e-books, perception and attitudes towards e-books use, factors influencing e-books' use, and challenges encountered in the use of e-books among the students with the ultimate aim of making suggestions for successful and effectual use of e-books.

6.2.1 Awareness of e-books

The study sought to find out the knowledge and awareness levels of e-books among the post-graduate students from the UG and the GTUC. The findings revealed that the post-graduate students from the UG being 99% as compared to 100% from the GTUC were knowledgeable about e-books. Awareness levels about e-books were equally found to be adequate and high among the students. The study again showed that 56.7% of the respondents from the UG as against 71.7% from the GTUC stated varied forms of publicizing their e-books and so e-books were found to be well-publicized.

6.2.2 Utilization of e-books

The usage rate of e-books at the UG and the GTUC, as one of the objectives of the study, was

also ascertained. It was found that the usage rate of e-books at the UG being 87.6% as against 75.5% at the GTUC was very high and therefore meant that post-graduate students were making good use of the e-books acquired by their respective libraries. It further meant that the libraries were not wasting their meager resources on the acquisition of e-books since students were making maximum use of them. Most of the UG post-graduate students surveyed, that is 66% as opposed to 35.8% from the GTUC indicated that they did not receive training on the use of e-books and their knowledge on training periods was also found to be very low as the majority of them claimed not to know about any training periods. Contrarily, most students from the GTUC being 64.2% as against 34% from the UG indicated that they had received some training on the use of e-books but the majority of them also lacked knowledge about training periods. Also, among the reasons for which e-books were used were the following: to support research activities, convenient to use, it saves time, easy to access, and others. The purposes for which e-books were used included, for academic and leisure purposes.

6.2.3 Factors influencing the use of e-books.

The study identified factors that influenced the students' decisions to use e-books in both institutions as follows: At the UG, 79.4% agreed and strongly agreed that e-books aid in gaining knowledge as against 62.3% at the GTUC. At the UG, 72.2% agreed and strongly agreed as opposed to 47.2% from the GTUC that, e-books were easy to use. The following factors were also identified by the post-graduate students at both institutions as other factors that motivated them to use e-books and these are as follows: "good as print books", "they are useful in my learning and research", and "I do not have to borrow the e-book".

6.2.4 Benefits/importance of the use of e-books

Another objective the study examined was the benefits of the usage of e-books among the post-graduate students at the two institutions. Findings revealed that the e-book offers numerous benefits in their learning and research activities. The students considered the e-book to be very beneficial in their daily learning and research work. Among the impacts e-books made on their learning and research work were that, at the UG, 79.4% as against 73.6% from the GTUC said that e-books enabled them to retrieve current information, whilst the majority at the UG, being 82.5% as compared to 75.5% at the GTUC said that they could retrieve more information from e-books. At the UG, 74.2% as compared to 73.6% from the GTUC could also access more information simultaneously. Again, at the UG, 74.2% as opposed to 75.5% at the GTUC could also download more information from e-books, and above all, they could find information from e-books which was not readily available from print books. The usefulness of the e-book was also found to offer benefits such as its convenience to scroll up and down, ease of finding relevant information, and e-books being useful in their learning and research work.

6.2.5 Perception and attitudes towards the use of e-books

In an attempt to determine the post-graduate students' perception and attitudes towards the use of e-books in their learning and research work, the study found that some of the students from the UG being 46.4% as against 43.4% from the GTUC held a positive perception about the use of e-books in their learning and research engagements. This was demonstrated by the majority of the students who considered e-books to be very important in their learning and research work. The study further showed that e-books provided to post-graduate students at the UG where 72.2% of the respondents as compared to 75.5% from the GTUC stated that their respective institutional

libraries were meeting their learning and research requirements. Features of the e-book that endeared the students to use it were also identified. These included the following: “e-book can be accessed anywhere (mobile)”, “the e-book enables me to have my collection”, “it allows me to have instant access to content”, and “it enables me to bookmark pages”. The future use of the e-book was also sought, and the study revealed that the majority of the students from both institutions were confident that they would use the e-book in the future. This, therefore, meant that their respective libraries could continue to invest in e-book content as their students’ guaranteed future use of the e-book.

6.2.6 Challenges in the use of e-books

Majority of the students confirmed that indeed several challenges were inhibiting their usage of e-books. Among the major identified factors impeding the students’ use of e-books from the UG 84.5% as against 75.5% from the GTUC was the slow Internet. Again, at the UG, 48.4% as compared to 49.1% from the GTUC lacked off-campus access. Additionally, at the UG, 53.6% as opposed to 75.5% from the GTUC found it difficult to sift through several titles. Difficulty in reading from the screen, password limitations, pages taking too long to pop up, and low Internet bandwidth were among other challenges faced by post-graduate students when accessing e-books.

6.3 Conclusion

E-books in both the UG and the GTUC were optimally utilized because the students’ at both universities were aware of the existence of e-books in their respective institutions and when this happens information professionals and librarians feel a sense of satisfaction. Librarians would have felt that the huge amounts spent in acquiring e-books are after all not a waste. They can

justify their budgets in this era of financial constraints where libraries' budgets always experience some level of cuts. Even though, the students' indicated benefiting from the use of e-books for learning and research activities, inadequate training and other challenges encountered in the utilization of e-books such as the slow Internet, lack of off-campus access, password limitations, low bandwidth, which ultimately would have affected the use of e-books in many ways need to be looked at. Proposals to deal with these problems include organizing enough awareness and training programmes for the post-graduate students at both universities, installation of sufficient bandwidth to enable faster Internet access and downloading, and provision of the 'Proxy Server' to solve the problem of off-campus access.

6.4 Recommendations

Based on the outcome of the study, the following recommendations have been made for the effective use of the e-books for learning and research by the postgraduate students in Ghana. These recommendations are focused on the areas of awareness creation, level of usage of e-books, training, factors influencing the use of e-books, and challenges faced in the use of e-books.

6.4.1 Awareness of the e-books

The study found out that the majority of the respondents used e-books for learning and research in their institutions. Meanwhile, some of them held a contrary view of the existence of the e-books. It is, therefore, recommended that publicity of the existence and use of e-books should be intensified than before so that the postgraduate students can derive the full benefits of its usage for learning and research activities. Moreover, the existing ways of making use of e-books known to the students such as orientation, reading about it from notice boards and so on can be promoted by the use of the social media (Twitter, Whatsapp, Facebook), flyers, seminars, and the

use of Subject librarians in their various departments and schools to disseminate information about e-books. Furthermore, awareness crusades about the existence of e-books (e-Book week celebration) can also be conducted to create awareness. Fresh students should be sent messages by the libraries immediately after registration amount the existence of e-books collection in the library. This is a way of giving more visibility to e-books. The researcher believes that by doing this, both the UG and the GTUC will create more awareness of the existence of the e-books thereby increasing their usage for academic activities in the universities.

6.4.2 The level of Usage of e-books

The study found out that a greater number of the postgraduate students used e-books for learning and research work. However, most of the respondents from the GTUC said that they could not have access to e-books when they were outside the school campus as against a few of them from the UG. It is therefore recommended that both institutions especially the GTUC should purchase 'Proxy Servers to boost the existing Internet facility. Again, the GTUC should liaise with the UG and learn how to handle this aspect of e-book use and implement the same for their students. Both the UG and the GTUC should improve the internet facilities available such as the installation of fibre cables to improve the connectivity for the utilization of e-books. Finally, the institutions should increase the existing volume of the bandwidth to enhance the accessibility of the e-books by the students.

6.4.3 Frequency of use of e-books

Although, the study revealed that majority of the postgraduate students were often consulting the e-books for academic activities, yet, a sizeable number were not using the e-books therefore, it is recommended that, the various institutions (the UG and the GTUC) should encourage their

students to frequently access the e-books for their academic work. However, evaluation of the use of the e-books should be conducted from time to time to find out whether the usage is increasing or not. This evaluation will enable the library staff to assess the provision of e-book service. Appropriate e-books should be acquired by the library staff conducting needs assessments to know what is needed by the postgraduate students. Furthermore, the lecturers could play a role by recommending or advising their students to use the e-books for learning and research. The lecturers could also recommend e-books as a reading text for their students.

6.4.4 Training

In solving the problem of lack of training in the use of e-books and the challenges encountered at both institutions (that is the UG and the GTUC), the following recommendations have been made. The study found out that majority of the postgraduate students especially from the University of Ghana said that they were not given training in the utilization of the e-books as was done to those in the Ghana Technology University College and this could not make the UG students make full utilization of the e-books in their institution. It is thereby recommended that training in the use of the e-books should be organized from time to time within the semester and students are to be encouraged to participate and contribute during the training sessions to make it interesting. Students lecture periods should be taken into consideration in organizing these trainings so that they do not miss out on such training sessions. The few students who indicated to have been given some training should also be given refresher courses to remind them of what they were taught. Finally, when constant training is given to the students, it will enable them to have confidence and the needed skills to use the e-books effectively.

6.5 Challenges in the use of e-books

The challenges experienced by the postgraduate students in the use of e-books in their institutions were slow internet, difficulty in sifting through several titles that are available, difficulty in reading from the screen, pages taking too long to navigate, not having off-campus access, password limitation, difficulty in discovering e-books, low internet bandwidth among others. It is therefore recommended that the institutions should put mechanisms in place by providing a fast Wi fi access to boost the volume to curb the malfunctioning of the low internet, while stand-by generators/plants should be provided whenever there is a power outage. Password limitation should be eliminated and registered postgraduate students should be given Password-Free access for them to have smooth access to the use of the e-books for learning and research activities.

6.6 Future Research

The following suggestions are made for further study in the area of e-books. The study found out the Use of e-books for learning and research by postgraduate students in Ghana: a comparative study of the University of Ghana and the Ghana Technology University College. Recommendations have been made based on the outcome of the studies. It is therefore suggested that similar studies should be carried out in future by employing mixed methods, comparing postgraduate and the undergraduate students usage of e-books, e-books verses print book and finally, the study could be triplicated.

References

- Adebamowo, O. (2011). The use of school library resources in Ogun State Secondary Schools: a study of selected secondary schools in Ijebu North LGA. *Nigeria Journal of Research in Education and Society*. 2(1), 113
- Adewole-Odeshi, E. (2014). Attitude of students towards e-learning in South West Nigerian Universities: an application of technology acceptance model. *Library Philosophy and Practice* (e- journal) 0_1
- Adeyanju, E. O., Achonna, A.U. & Yaya, J. A. (2012). Prospects and Problems of Virtual Library to the Educational Development in Nigeria. *Jewel Journal of Librarianship*, 4, 139 – 149.
- Ahmad, P., & Brogan, M. (2010). Scholarly use of e-books in a virtual academic environment. A case study. *Australian Academic & Research Libraries*, 43(3), 189-213. DOI: 10.1080/00048623.2012.10722277
- Ahmad, S. O. (2012). *Questionnaire and type*. Retrieved from doi:10.13140/RG.2.1.2235.0320 https://www.researchgate.net/publication/304607255_Questionnaire_and_Types on 18/9/20
- Ahmed, M.S. (2016). *Technology acceptance of smartphones as mobile learning tool: a Contextual comparative study of engineering and education colleges*.
- Aina, F. R. (2014). Awareness, accessibility and use of electronic database among academic staff of Babcock University Business School. *Kuwait Chapter of Arabian Journal of Business and Management review* 3(6)
- Akporhonor, B.A. & Akpojotor, L.O. (2016). Challenges confronting postgraduate library and Information Science students in the use of electronic resources in Southern Nigeria. *Library Philosophy and Practice* (e-journal) 1319

digitalcommons.unl.edu/libphilprac/1319

- Akuffo, M. N., & Budu, S. (2019). Use of electronic resources by students in a premier postgraduate theological university in Ghana. *South African Journal of Information Management*, 21(1), 1-9
- Al, U., Soydal, I., & Tonta, Y. (2010). Analysis of e-book use: The case of Ebrary *proceedings of the 14th International Conference on Electronic Publishing*, 315-329.
- Al-Azawei, A., Parslow, P., & Lundqvist, K. (2015). Investigating the effect of learning styles in a blended e-learning system: An extension of the technology acceptance model (TAM). *Australasian Journal of Educational Technology*, 33(2). Accessed 12/8/20
- Al-Gahtani, S. S., Hubona, G. S., & Wang, J. (2007). Information technology (IT) in Saudi Arabia: Culture and the acceptance and use of IT. *Information & management*, 44(8), 681-691.
- Alharbi, S. & Drew, S. (2014). Mobile-learning system usage: scale development and empirical tests. *International Journal of Advanced Research in Artificial Intelligence*, 3(11), 31-47
- Allen, M. & Kaddu, S. (2014). A report on the survey of the e-books and e-learning in African countries. Report completed for *IFLA International Leaders Programme, Group 3: Access to Digital Content, March 2014*
- Alreck, P.L. & Settle, R.B. (2004). *The survey research handbook*. 3rd ed. New York, NY: McGraw-Hill Education
- Alwahaishi, S. & Snasel, V. (2013). Consumers' acceptance and use of ICT: A UTAUT and Flow Based Theoretical Model. *Journal of Technology Management and Innovation*, 8(2),102-112

- Ankamah, S. (2017). *The use of ICT in research by postgraduate students in public Universities in Ghana*. (Unpublished MPhil Thesis). Legon: Department of Information Studies, University of Ghana.
- Ankrah, E. (2014). *The impact of information systems strategy on Bank performance in Ghana*. (Unpublished Doctoral Thesis). Legon: Department of Information Studies, University of Ghana.
- Anuradha, K. T., & Usha, H. S. (2006). *Use of E-Books in an Academic and Research Environment: A Case Study from the India Institute of Science*. Program Electronic Library and Information Systems 40(1)
doi: 1108/00330330610646807 Accessed 14/01/19
- Arthur. A. (2001). *Electronic books: Internet research*. Available at http://www.e-bookcenter.dk/nyt/electronic_books.pdf.
- Arthur, E. (2006). *Reading Habits of children in the Sunyani Municipality*. (Unpublished MA Dissertation), Legon: Department of Information Studies University of Ghana.
- Atkins, M. (2014). Foreword In Woodwad, H. *E-Books in Education: Realizing the Vision*. 2nd ed. London: Ubiquity Press.
DOI: <http://dx.doi.org/10.5334/bal.fow>
- Attuquayefio, S. (2019). Development of a Conceptual Framework to Support ICT Adoption by Ghanaian Higher Education Students. *International Journal of Education and Development using Information and Communication Technology*, 15(4), 116-131
Retrieved 12/8/20
- Attuquayefio, S. N. & Addo, H. (2014). Using the UTAUT model to analyse students ICT

- adoption. *International Journal of Education and Development Using ICT*, 10 (3),
- Babu, B. R. (2011). Relevance of Five Laws of Library Science in the Contemporary Library World. *Journal of the Korean Society for Library and Information Science*, 45(4), 253-269.
- Badu, E.E.E. (2015). *Techniques in research methodology*. (Unpublished article).
Department of Information Studies. Legon: University of Ghana.
- Bailey, T.P. (2006). Electronic books usage at a Master's level University: A longitudinal study. *The Journal of Academic Librarianship*, 32 : 52-59
- Baker, G., & Read, E. J. (2008). Vendors supplied usage data for electronic resources: A survey of academic libraries. *Learned and Publishing*, 21(1), 48-57.
- Baker, R. D. (2010). *Comparing the readability of text displays on paper, e-book of readers, and small screen devices*. (Unpublished Ph.D. Dissertation). Denton: University North Texas. digital.library.unt.edu/ark:/675311/metadc28390/
Accessed 14/01/19
- Balnaves, M. & Caputi, P. (2011). *Introduction to Quantitative Research Methods: an Investigative Approach*. SAGE Publishing. <https://uk.sagepub.com/en-gb/eur/...to-quantitative-research-methods/book210544> Accessed 20/01/19
- Bankole, O.M. (2012), "The use of internet services and resources by scientists at Olabisi Onabanjo University, Ago Iwoye, Nigeria", *Program: electronic library and information systems*, Vol. 47 No. 1, pp. 15-33. <https://doi.org/10.1108/00330331211296295>
- Bar-Ilan, J., Peritz, B. C. & Wolman, T. (2003). A Survey on the use of Electronic Databases and Electronic Journals accessed through the Web by the Academic Staff of the Israeli Universities. *The Journal of Academic Librarianship*, 29(6),
Doi: 1108/00330330610646807 Accessed 14/01/19

- Bennett, L., & Landoni, M. (2005). "E-books in academic libraries". *The Electronic Library*, 23(1), 9-16
- Bentil, W. (2011). *The use of electronic resources in Ghanaian Universities: a comparative study of the University of Cape Coast and the Central University College*. (Unpublished MPhil Dissertation). University of Ghana, Legon
- Bhoi, N. K. (2017). *Use of information communication technology (ICT) and library operation: An overview*.
<http://eprints.rclis.org/32231/1/Use%20of%20Information%20Communication%20Technology%20%28ICT%29%20and%20Library%20OperationAn%20Overview.pdf>
Accessed 14/9/20
- Biranvand, A., & Khasseh, A. A. (2014). E-book reading and its impact on academic status of students at Payame Noor University, Iran. *Library Philosophy and Practice*, 0_1.
- Blaikie, N. (2000). *Designing social research*. Cambridge: Polity Press.
- Boachie, J. (2016). *Access and use of e-books among students in Senior High Schools: a case study of schools in Kumasi Metropolis*. (Unpublished MA Dissertation). Kumasi: KNUST
- Boateng, R. (2014). *Research made easy*. Accra: PearlRichards Foundation.
- Borchert, M., Hunter, A., MacDonald, D., & Tittel, C. (2009). A study on students and staff awareness, acceptance and usage of e-books at two Queenlands universities. In *14th ALIA Information Online Conference & Exhibition*, 2009-01-20 - 2009-01-22.
<https://eprints.qut.edu.au/20379/1/c20379.pdf>
- Bottger, R. (2010). E-books: Access to e-books, opportunities and limits. The challenge for libraries. *Vjesnik Bibliotekara Hrvatske*, 56(1/2), 71-77.

- Burmeister, E. & Aitken, L. (2012). Sample size: How many is enough? *Journal of Australian Critical Care*. DOI: <https://doi.org/10.1016/j.aucc.2012.07.002>
- Busha, C. H. & Harter, S. P. (1980). *Research methods in librarianship: techniques and interpretation*. San Diego: Academic Press.
- Buzzetto-More, N., Sweat-Guy, R., & Elobaid, M. (2007). Reading in a digital age: e-books are students reading for this learning object? *Interdisciplinary Journal of Knowledge and Learning Objects*, 3(1), 239-250.
- Cassidy, E.D., Martinez, M. & Shen, L. (2012). Not in love, or not in the know? Graduate student and faculty use (and non-use) of e-books. *The Journal of Academic Librarianship*, 38(6), 326-332
- Chang, C.C.(2013). Library mobile application in University libraries. *Library Hi Tech*, 31(3), 478-492
- Chang, P. Y., Ng, M. Q., Sim, H. Y., Yap, J. W., & Yin, S. Y. (2015). *Factors influencing behavioural intention to adopt mobile e-books among undergraduates: UTAUT2 framework* (Doctoral dissertation, UTAR).
- Chao, Y.C. (2005). A study of network user's acceptance on wireless local area network. (Unpublished MA Thesis). Taiwan : National Sun Yet-Sen University
- Chen, C.C. (2012). "Identifying drivers for adoption intention in RFID service". *International Journal of Mobile Communication*, vol.10(3), p.231-247
- Chen, W. S., & Yao, A. Y. T. (2016). An empirical evaluation of critical factors influencing learner satisfaction in blended learning: A pilot study. *Universal Journal of Educational Research*, 4(7), 1667-1671.
- Chong, A.Y.L., Chan, F.Y.L. & Ooi, K.B.(2012). Predicting Consumer decisions to adopt mobile Commerce: Cross country empirical examination between China and

Malaysia. *Decision Support Systems* 53(1), 34-43

Chong, J.X. (2013, September 12). *Smartphone penetration hits 63% in Malaysia.*

TheStar. Retrieved From:

<http://www.thestar.com.my/Tech/Tech-News/2013/09/12/Smartphone-andtablet-penetration-hits-63-percent/>

Christianson, M., & Aucoin, M. (2005). Electronic or print books: Which are used?

Library Collections, Acquisitions, and Technical Services, 29(1), 71-81.

Chu, H. (2003). Electronic Books: Viewpoint from Users and Potential Users. *Library*

Hi- Tech, 2(3), 340 – 346

Clarke, S. (2012). *End-user Computing, Development, and Software Engineering: New*

Challenges. IGI Global (701 E. Chocolate Avenue, Hershey, Pennsylvania, 17033, USA).

Cohen, D. (2019). The books of college libraries are turning into wallpapers (May 2019). *Im*

Internet: <https://www.theatlantic.com/ideas/archive/2019/05/college-students-arent-checking-out-books/590305> *Stand*, 25.

Connacoay, L. S. (2013). Electronic Books (E-Books). Current Trends and Future

Direction. *DESIDOE Bulletin of Information Technology*, 23 (1), 13 – 18.

Cooper, H. (2010). Applied social research methods series: Vol. 2. Research synthesis and meta-

analysis: A step-by-step approach. 4th ed. Los Angeles: SAGE Publications

Corlett-Rivera, K., & Hackman, T. (2014). E-Book Use and Attitudes in the Humanities,

Social Sciences and Educational Portal. *Libraries and the Academy*, 14(2),

253– 286. DOI: 10:1353/pla.2014.0008

Creswell, J. W. (2003). *Research design: qualitative, quantitative and mixed method*

- approaches*. Thousand Oaks, California: Sage Publishers,
- Creswell, J.W. & Clark, V. L.P. (2011). *Designing and conducting mixed methods research*. Sage: Los Angeles.
- Creswell, J.W. (2012). *Research design: qualitative, quantitative and mixed methods approaches*. 3rd ed. Los Angeles: Sage Publishers.
- Creswell, J.W. (2014). *Research Design: Qualitative, quantitative and Mixed methods Approach* 3rd ed. Los Angeles: SAGE Publications Inc. Retrieved from <http://doi.org/10.1007/s/>
- Croft, R. & Davis, C. (2010). E-books revisited: surveying student e-book usage in a distributed learning academic library 6 years later. *Journal of Library Administration*, 50(5/6) 543-569 Accessed 14/01/19
- Crum, M. (2015). Sorry, Ebooks. These 9 studies show why Print is better. *Huffington Post*, 27. Retrieved 17/8/20
- Daniel, D. B. & Woody, W. D (2013). E-Textbooks at What Cost. Performance and Use of Electronic V. Print Text. *Computers & Education*, 62, 18 – 23.
- Davis, F. (1989). Perceived usefulness, perceived ease of use and user acceptance of information technology. *MS Quarterly* 13(3) 319-340
- Davis, F.D., Bagozzi, R.P. & Warshaw, P.R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management Science* 35(8) 982-1003. doi.org/10.1287/mnsc.35.8.982
- Dečman, M. (2015). Modeling the acceptance of e-learning in mandatory environments of higher education: The influence of previous education and gender. *Computers in human behavior*, 49, 272-281.

- Dhanavandami, S., Esmaic, S.M. & Nagarajan, M. (2012). Use of electronic resources at Kristiansand College of engineering and technology library, Cuddaloe. *Library Philosophy and Practice*. Retrieved webpage.uldaho.edu/~mbolin/dhanavandanemailnagarajan3.htm
- Dillon, D. (2001b). "E-books: The University of Texas experience, part 1". *Library Hi Tech*, 19(2), 113-125
- Doering, T., Percia, L. & Kuechler, L. (2012). The Use of E-Textbooks in Higher Education. *A Case Study in Proceedings of the E-Leaders Conference*. 4 – 6, June 2012, Berlin, Germany.
- Doiron, R. (2011). Using e-books and e-readers to promote reading in school libraries: Lessons from the field. University of Nebraska – Lincoln. Digital Commons at University of Nebraska–Lincoln. *Library Philosophy and Practice* (e-journal). In IFLA Conference (pp.13-18)
- Ebrary (2012). 2012 Global Student e-book survey. United Kingdom. Available at <http://site.ebrary.com/lib/surveys/docDetail.action?docID=80089377>
- Eicker-Nel, S., & Matthee, M. (2014). The adoption of tablet based e-textbooks in a South African private school. *In Proceedings of the e-skills for knowledge production and innovation conference 2014*. Cape Town, South Africa.
- Embong, A.M., Noor, A.M. & Abdullah, M.R.T.L. (2012). E-books in Malaysian Primary Schools. The Terengganu Chapter. *International Journal of Social, Behavioral Educational, Economic, Business and Industrial Engineering*, 6(6), 1106-1109
- Fiankor, D. K., & Akussah, H. (2012). Information use and policy decision making by district assembly members in Ghana. *Information Development*, 28(1), 32-42.

- Folb, B. L.; Wessel, C. B. & Czechowski, L. J. (2011). Clinical and academic use of electronic and print books: the Health Sciences Library System e-book study at the University of Pittsburgh. *Journal of the Medical Library Association*, 99(3), 218-228.
- Fowler, F. J. (2014). *Survey research methods*. 5th ed. Los Angeles: Sage,
- Fraenkel, J.R. & Wallen, N.E. (2000). *How to design and evaluate research in education*. 4th ed. Boston: McGraw-Hill
- Fyfe, C. (2014). *E-books in higher education: A strategic priority?* In Woodward, H. (ed). *E-books in education: Realizing the vision*. London: Ubiquity Press. (Pp. 1-7) **[e-book]**
- Gaffar, K. Thomas, T.D. & Singh, L. (2013). The utility of the UTAUT model in explaining mobile learning adoption in higher education in Guyana. *International Journal of Education and Development Using Information and Communications Technology (IJEDICT)*, 9(3), 71-85
- Gakibayo, A, Ikoja-Odongo, J.R. & Okello-Obura, C. (2013). Electronic information resource utilization by students in Mbarara University library. *Library Philosophy and Practice*, I.
- Gao, T., & Deng, Y. (2012). A study on users acceptance behavior to mobile e-books Application based on UTAUT model. *In IEEE 3rd International Conference on Software, Engineering and Services Science (ICSCSS)*, 376-379. New York: IEEE.
- Gardiner, E. & Mutso, R.G. (2010). "The Electronic Book": *The Oxford Companion to the Book*: Oxford: Oxford University Press,
- Ghana Technology University College. *Post graduates Deans Office*. (2019). Tesano, Accra: GTUC
- Ghana Technology University College (n.d.). *Handbook for Undergraduate*. Tesano, Accra: GTUC

- Gibbons, C. (2001). *Net Library E-book usage at the University of Rochester Libraries*.
Available at <http://www.lib.rochester.edu/main/ebooks/analysis.pdf> Accessed 9/8/19
- Gibson, C. & Gibb, F. (2011). An evaluation of second generation e-book readers.
The Electronic Library, 29(3), 303
- Glackin, B. C., Rodenhiser, R. W., & Herzog, B. (2014). A library and the disciplines: A collaborative project assessing the impact of eBooks and mobile devices on student learning. *The Journal of Academic Librarianship*, 40(3-4), 299-306.
- Grace, J.L. Shepperd, J.A. & Koch, E.J. (2008). "Evaluating the electronic textbook: is it time to dispense with the paper text?" *Teaching of Psychology*, 35 (1), 2-5
Doi: 10.1080/00986280701818532
- Grace, K. E. (2011). *Comparing the ipad to paper: Increasing reading comprehension in the digital age*. (MED Thesis). Bowling Green, OH: Bowling Green State University.
- Gravett, K. (2011). Providing guidance, training and support for readers using e-books. *E-books in libraries: a practical guide*. London: Facet, 163-179.
- Grudzien, P. & Casey, A.M. (2008). Do off-campus students use e-books? *Journal of Library Administration*, 48(3-4): 455-66
- Hart, C. (1998). *Doing a literature review: releasing the social science research imagination*
London: SAGE Publications
- Hart, M. (2001). *Gutenberg: How e-Texts will become the "Killer App" of the Computer revolution*.
[http://www.gutenberg.org/wiki/Gutenberg:How_eTexts_Will_Become_the_%22Killer_A
pp%22_of_the_Computer_Revolution_by_Michael_Hart](http://www.gutenberg.org/wiki/Gutenberg:How_eTexts_Will_Become_the_%22Killer_App%22_of_the_Computer_Revolution_by_Michael_Hart) Accessed 14/01/19
- Hillesund, T. (2001). Will e-books change the world?" *First Monday*, 6 (10).

<https://journals.uic.edu/ojs/index.php/fm/article/view/891/800/>

<http://doi.org/10.5210/fm.v6i10.891>

- Hindagolla, M. (2014). *Understanding user acceptance of electronic information resources: effects of content relevance and perceived abilities*. No. 59(12)
- Holmes, A., Byrne, A. & Rowley, J. (2013). "Mobile shopping behavior: insights into attitudes, shopping process involvement and location. *International Journal of Retail and Distribution Management*, 42 (1), 25-39. Available at <https://doi.org/10.1108/IJRDM-10-2012-0096> Retrieved 18/12/18
- Hsiao, C. H., Tang, K-Y & Lin, C-H. (2015). Exploring college students' intention to adopt e-textbooks: a modified technology acceptance model. *Libri* 65 92 119-128 doi.org/10.1515/libri-2014-0155
- Im, I., Hong, S. & Kang, M.S. (2011). An international comparison of technology Adoption: Testing the UTAUT model *Information and Management*, 48 (1), 1-8
- Islam, M. S., Alam, M. S., & Sultana, S. (2011). Access and usage of electronic journals in Dhaka University Library (DUL): An empirical study. *Journal of the Bangladesh Association of Young Researchers*, 1(2), 30-47.
- Ismail, R., & Zainab, A. N. (2005). The pattern of e-book use amongst undergraduates in Malaysia. A case of to know is to use. *Malaysian Journal of Library and Information Science*, 10(2), 1-23.
- Jabeen, F., Khan, M., & Ahmad, S. Z. (2015, September). Understanding the technology receptivity in higher education students in the UAE context. In *Proceedings of International Academic Conferences* (No. 2703162). International Institute of Social and

Economic Sciences.

Jamali, H.R., Nicholas, D., & Rowlands, I. (2009). Scholarly e-books: the view of

16,000 Academics: results from the JISC National e-book Observation.

Aslib Proceedings: New Information 61(1), 33-47.

DOI:10.1108/00012530910932276

Jaradat, M.R.M. & Rababaa, M.S. (2013). Assessing key factors that influence on the acceptance of mobile commerce based on modified UTAUT.

International Journal of Business and Management, 8(23), 102-112

Jawad, H.H.M., & Hassan, Z.B. (2015). Applying UTAUT to evaluate the

acceptance of Mobile learning in higher education in Iraq. *International*

Journal of Science and Research, 4(5), 952-954

JISC (2008b). *Findings from the First User Survey*.

<http://observatory.jiscebooks.org/reports/findings-from-the-first-user-survey/>

JISC Collections (2009). *National E-books Observatory Project: Key Findings and*

Recommendations. [http://observatory.jiscebooks.org/reports/jisc-national-e-](http://observatory.jiscebooks.org/reports/jisc-national-e-books-observatory-project-key-findings-and-recommendations/)

[books-observatory-project-key-findings-and-recommendations/](http://observatory.jiscebooks.org/reports/jisc-national-e-books-observatory-project-key-findings-and-recommendations/)

JISC (2012). *Preparing for Effective Adoption and Use of E-books in Education*

(JISC Observatory TechWatch Series, Report No 4, Final version, December

2012). <http://observatory.jisc.ac.uk/docs/ebooks-in-education.pdf> Retrieved

31/01/20

JISC Digital Media, (2014). Introduction to e-books. American Institute of Science.

International Journal of Education and Information Technology 1(3), 92-98

www.jiscdigitalmedia.ac.uk/guide/introduction-to-e-books

- Johnson, J. & Christiansen, L. (2012). *Educational research: quantitative, qualitative and mixed Approaches*. 4th ed. Los Angeles, CA: SAGE
- Johnson, S., Evensen, O. G., Gelfand, J., Lammers, G., Sipe, L. & Zilper, N. (2012). *Key issues for e-resources collection*. The Hague: International Federation of Library Associations and Institutions.
- Joo, Y. J., Lim, K. Y., & Kim, E. K. (2011). Online university students' satisfaction and persistence: Examining perceived level of presence, usefulness and ease of use as predictors in a structural model. *Computers & education*, 57(2), 1654-1664.
- Kärni, S., & Julin, P. (2015). A framework for measuring student and staff satisfaction with university campus facilities. *Quality Assurance in Education*, 23 (1), 46-66
<https://doi.org/10.1108/QAE-10-2013-0041>
- Kimball, R., Ives, G., & Jackson, K. (2010). Comparative usage of science e-book and print collections at Texas A&M University Libraries. *Collection Management*, 35(1), 15-28.
- Kojie, V. (2017). Emergence of E-Book and the Survival of the Physical Book in Africa. *Library Journal*, 36(1), 97 – 105.
- Kombo, D.K., & Tromp, D.A. (2006). *Proposal and thesis writing: an introduction*. Nairobi, Kenya: Pauline Publication Africa.
- Korobili, S., Tilikidou, I., & Delistavrou, A. (2015.). Factors that Influence the use of Library Resources by Faculty Members. *Library Review*
- Kossey, J., & Brown, V. (2011). Digital readers: An emerging technology in education. In M. Koehler & P. Mishra (eds). Proceedings of Society for *Information Technology & Teacher Education International for the Advancement of Computing in Education*

- (AACE).Conference 2011. Chesapeake, VA: Association
- Kumar, R. (2005). *Research methodology: a step by step guide for beginners*. 3rd ed. Singapore: Pearson Education. Retrieved from www.ihmgwalior.net/pdf/research_methodology.pdf p.24
- Lam P, Lam S.L, Lam J & McNaught C. (2008). Usability and usefulness of eBooks on PPCs: How students' opinions vary over time. *Australasian Journal of Educational Technology*, 25(1), 30-44.
- Lamb, A. (2012). *An Investigation of Academics' perception, uptake and use of E-Books at the University of Waikato*. [Unpublished MIS research project]. Victory University of Wellington, Wellington, New Zealand. DOI: 10:1108/0264047121/28
- Lamothe, A. R. (2010). Electronic book usage patterns as observed at an academic library: Searches and viewings partnership. *The Canadian Journal of Library and Information Practice and Research*, 5(1).
- Lee, J. W. (2010). Online support service quality, online learning acceptance, and student satisfaction. *The internet and higher education*, 13(4), 277-283.
- Lemken, B. (1999). *E-book: The missing link between paper and screen*. *Designing electronics bookshop*. In proceedings of the ACM CHI99 Conference on Human Factors in Computing Systems, Pittsburgh, PA
- Lenares, D. (2013). eBook Aggregators: A Primer. *Against the Grain*, 25(6), 10.
- Letchumanan, M. & Tarmizi, R.H. (2010). Utilization of e-books among University Mathematics Students. *International Conference of Mathematics Education Research 2010 (ICMER 2010)*. Available online at www.sciencedirect.com Procedia Social and Behavioral Sciences 8 Accessed 14/01/19
- Letsa, M.M. (2010). Interactive electronic books as an educational tool for children.

(Unpublished MA Dissertation). Kumasi: KNUST

Levine-Clark, M. (2014). E-book usage on a global scale: patterns, trends and opportunities.

Insights, 28 (2) [https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Levine-](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Levine-Clark%2C+M.+%282014%29.++E-book+usage+on+a+global+scale%3A+patterns%2C+trends+and+opportunities.+++++&btnG=)

[Clark%2C+M.+%282014%29.++E-](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Levine-Clark%2C+M.+%282014%29.++E-book+usage+on+a+global+scale%3A+patterns%2C+trends+and+opportunities.+++++&btnG=)

[book+usage+on+a+global+scale%3A+patterns%2C+trends+and+opportunities.+++++&](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Levine-Clark%2C+M.+%282014%29.++E-book+usage+on+a+global+scale%3A+patterns%2C+trends+and+opportunities.+++++&btnG=)

[btnG=](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Levine-Clark%2C+M.+%282014%29.++E-book+usage+on+a+global+scale%3A+patterns%2C+trends+and+opportunities.+++++&btnG=)

Liao, P. W., & Hsieh, J. Y. (2011). What influences Internet-based learning?. *Social Behavior and Personality: an international journal*, 39(7), 887-896. Doi: 10.2224/sbp.2011.39.7.887

Lin, P. P. (2005). A study on acceptance of numbering probability in Taiwan mobile phone Service market. (Unpublished MA Thesis). Taiwan : National Kaohsiung First University of Science and Technology. *Asia Pacific Management Review* 17(1)

Lin, S.J., Zimmer, J.C. & Lee, V. (2013). Podcasting acceptance on campus: the differing perspectives of teachers and students. *Computers and Education*, 68(1), 416-428

Link, F.E. (2012). Are we there yet? An analysis of e-book equivalent coverage in highly-circulated titles at the College of New Jersey library. *Collection Building*, 31(4), 132-135

Littman, J. & Connaway, S. (2004). Circulation analysis of print books and e-books in an academic research library. *Library Resources and Technical Services*, 48(4): 256-262

Lwoga, E. T., & Komba, M. (2015). Antecedents of continued usage intentions of web-based learning management system in Tanzania. *Education+ Training*. DOI: 10.1108/ET-02-2014-0014

Maepa, M.E. & Nkosi, D. (2013). The uptake of e-books on the African Continent: challenges and Prospects. African Library Summit 3-5 July 2013, UNISA, Pretoria. Available at <http://uir.unisa.ac.za/bilstream/handle/10500/10128/maepa-e-als.pdf?sequence=1>

- Malama, C., Landoni, M., & Wilson, R. (2004, September). Fiction electronic books: A usability study. In *International Conference on Theory and Practice of Digital Libraries* (pp. 69-79). Springer, Berlin, Heidelberg.
- Martin-Beltrán, M., Tigert, J. M., Peercy, M. M., & Silverman, R. D. (2017). Using digital texts vs. paper texts to read together: Insights into engagement and mediation of literacy practices among linguistically diverse students. *International Journal of Educational Research*, 82, 135-146.
- Martinez-Estrada, P., D. & Conaway, R., N. (2012). E-Books: The Next Step in Educational Innovation: *Business Communication Quarterly*, 15(2), 125 – 135.
- McGowan, M. K., Stephens, P. R., & West, C. (2009). Student perceptions of electronic textbooks. *Issues in Information Systems*, X (2), 459-465.
- Melcher, A. (2015). *ATG – Special report. Academic Library Survey on E-Books Readers. E-Books against the Grain*. Feb. 28, 2011.
- Millar, M., & Schrier, T. (2015). Digital or printed textbooks: which do students prefer and why?. *Journal of Teaching in Travel & Tourism*, 15(2), 166-185. DOI: 10.1080/15313220.2015.1026474 Retrieved 17/8/20
- Morley, D., & Parker, C. S. (2015). *Understanding computers: Today and tomorrow, comprehensive*. [Australia]: Cengage Learning. Retrieved 08/9/20 from https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Morley%2C+D.+and+Parker%2C+C.+S.+%282015%29.+Understanding+computers%3A+today+and+tomorrow&btnG=
- Moya, M., Nakalema, S. E., & Nansamba, C. (2018). Behavioural intention: Mediator of effort expectancy and actual system usage. *ORSEA Journal*, 7(1).
- Mtebe, J., & Raisamo, R. (2014). Investigating students' behavioural intention to adopt and use

- mobile learning in higher education in East Africa. *International Journal of Education and Development using ICT*, 10(3), 4-20
- Muir, L. & Hawes, G. (2013). The case for e-book literacy: undergraduate students' experience with e-books for course work. *The Journal of Academic Librarianship*. (Available at: dx.doi.org/10.1016/j.acalib/2013.01.002)
- Mulholland, E. (2012). *The impact and perceptions of e-books on academic staff in Further Education College in Northern Ireland*. Dissertation submitted for the MSc in Library and Information Management. University of Ulster
- Mwanzu, A. (2014). *A Survey of E-Book User Acceptance: A Case of USIU-A Library*. [Unpublished Research Project Degree of Executive Masters of Space in Organisational Development (EMOD)]. Chandana School of Business – United States International University, Africa, Nairobi.
- National Association of College Stores (2010). *E-books and e-reader device report*. Available at http://www.nacs.org/LinkClick.aspx?fileticket=blmPMgdQ_LA%3detabid=2471&mid=3210 Accessed 14/8/20
- Neuman, W. L. (2014). *Basics of social research: qualitative and quantitative approaches*. 3rd ed. Essex, England: Pearson Educational Ltd.
- Nicholas, A. & Lewis, J. (2010). Learning enhancement or headache: Faculty and e-textbook. Faculty and staff – Articles & Papers, Papers 29 <http://digitalcommons.salve.edu/fac-staff-pub/29>
- Nicholas, D., Rowlands, I., Clark, D., Huntington, P., Jamali, H. R., & Olle, C. (2008). UK scholarly e-book usage: A landmark survey. *Aslib Proceedings: New Information*, 60(4), 311-334.

- O'Cennel, B. & Haves D. (2013). E-Books as a Collection and Service: Developing a Public Library Instruction Program to support E-Book Use. *Journal of Library Innovation*,4(1), 53–66.
- Okumus, F. (2013). Facilitating knowledge management through information technology in hospitality organizations. *Journal of Hospitality and Tourism Technology*. 4 (1), 64-80
Accessed 14/9/20
- Oliveira, T., Faria, M. & Thomas, M.A. (2014). Extending the understanding of mobile banking adoption: when UTAUT meets TTF and ITM. *International Journal of Information Management*, 34(1), 689-703
- Omeluzor, S.U., Madukome, E. B. & Ogbuiyi, S. U. (2014). Use of electronic information resources and Research output by academic staff in private universities in Ogun State. *Canadian Social Science Journal*, 8 (3) 815
- Osuala, E. C. (2005). *Introduction to research methodology: The millennium edition*. Enugu, Nigeria, Cheston Agency Ltd.
- Oxford Dictionaries (2010). *E-book*. Oxford: Oxford University Press.
<https://en.oxforddictionaries.com/definition/learning> Accessed 3/10/18
- Panneerselvan, R. (2011). *Research methodology*. New Delhi: Learning, Private Ltd. p.22
- Pant, A. & Jindal, S. (2013). Availability of e-books in science: Case study of University of Delhi. *The Electronic Library*, 31(3), 313-328 Accessed 21/01/19
- Payare, L. (2014). Usage of the E- Books by the PhD and M. Phil students of Science Discipline In the Panjab University Library, Chandigarh. *International Journal of Information Sources and Services* 1(3), Nov-Dec.
- Pew Internet (2011). *Reading habits*.

<https://www.pewresearch.org/internet/Shared-Content/Data-Sets/2011/December-2011--Reading-Habits.aspx>

Pew Research Center (January, 2014). “*E-Reading Rises as Device Ownership Jumps*” Available At <http://pewinternet.org/Reports/2014/E-Reading-Update.aspx> / <http://pewinternet.org/Reports/2014/E> Accessed 17/08/20

Pickard, A.J. (2013). *Research methods in information*. 2nd ed. London: Facet

Pickett, L.L., Ginsburg, H.J., Mendez, R.V., Lim, D.E., Blankenship, K.R., Foster, L.E., Lewis, D.H., Ramon, S.W., Saltis, B.M., & Sheffield, S.B. (2012). Ajzen’s Theory of Planned Behavior as it relates to Eating Disorders and Body satisfaction. *North America Journal of Psychology*, 14 (2), 339-354

Picton, I. (2014). *The impact of e-books on the reading motivation and reading skills of children and young people: A rapid literature review*. London: National Literacy Trust Accessed 27/8/20

Popovic, A., Martins, C. & Oliveira, T. (2014). Understanding the internet banking adoption: A UTAUT and perceived risk application. *International Journal of Information Management*, 34 (1), 1-13

Posigha, B. E. (2012).”The use and future of electronic books in academic institutions in Nigeria”.*The Electronic Library*, 30 (6), 796 – 808.
<http://doi.org/10.1108/026404712112822118>

Quan-Haase, A., Martin, K., & Schreurs, K. (2014). Interviews with lifelong readers: Preliminary findings from the EDITS (Effects of Digital Information Technology on Seniors) project. Culture, Context, and Computing proceedings of the iConference, Berlin, March 4-7, 1980-1987. Urban, IL.iSCHOOLS

- Rabiu, N., Ojukwu, N. N. & Oladele, P., B. (2016). Availability and accessibility of e-books in Nigerian Libraries: A Survey. *Journal of Knowledge & Information Management*, 7(1), 163–75.
- Raman, A., Don, Y., Khalid, R., & Rizuan, M. (2014). Usage of learning management system (Moodle) among postgraduate students: UTAUT model. *Asian Social Science*, 10(14), 186-192.
- Rehman, S. U., Shafique, F., & Mahmood, K. (2011). A survey of user perception and satisfaction with reference services in university libraries of Punjab. *Library Philosophy and Practice*, 2011, 1-14.
- Rice, S. (2013). “Own or Rent?”: A Survey of E-Books Licensing Models. *Against the Grain*. 18 (3), 28–29. Available at DOI: <https://doi.org/10.7771/2380-176X.4957> Accessed 14/01/19
- Ridwan, S. M. (2015). Application of Electronic Publishing in Digital Age: Prospects and Challenges in Nigerian Universities. *European Scientific Journal*. 11(8), 263 – 277.
- Roesnita, I., & Zainab, A. (2005). The pattern of e-book use amongst undergraduates in Malaysia. A case of to know is to use. *Malaysian Journal of Library & Information Science*, 10(2), 1-23.
- Rogers, E. M. (2003). *Diffusion of innovations*. New York: New York Free Press.
- Romero-Otero, I. S., Fernández, I. E., & Giménez, Toledo E. (2013). *Use, acceptance and expectations for the e-book in a research library*. Retrieved from https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=romero-otero%2C+fernandez+and+gimerez+%282013%29&btnG= on 18/9/20

- Rose, J. & Li, Y. (2007). What do you do with an e-book collection: Manage it or get it and forget it? *MOBIUS 2007 Annual Conference: MOBIUS 2.0 – Designing our future*. Lake of the Ozarks, MO.
- Sackstein, S., Sparka, L. & Jenkins, A. (2015). Are E-Books Effective Tools for Learning? Reading speed and comprehension. I-pad vs. Paper. *South African Journal of Education*, 35(4)
https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Sackstein%2C+S.%2C+Sparka%2C+L.+%26+Jenkins%2C+A.+%282015%29.+Are+E-Books+Effective+Tools+for+Learning%3F+%09Reading+speed+and+comprehension.+I+pad+vs.+Paper&btnG=#d=gs_cit&u=%2Fscholar%3Fq%3Dinfo%3A9nvpFqiXiZ4J%3Ascholar.google.com%2F%26output%3Dcite%26scirp%3D0%26hl%3Den
- Safley, E. (2006). Demand for e-books in an academic library. *Journal of Library Administration*, 4(3/4), 445-457
- Saleem, J. (2011). University students: Between e-books and printed books. *Library Resources and Technical Services*, 55(4), 189-214 Accessed 14/8/20
- Sarantakos, S. (2013). *Social research*. 4th ed. Hampshire, England: Palgrave/Macmillan
- Saunders, M., Lewis, P. & Thomhil, A. (2007). *Research methods for business students* 5th ed. Edinburgh: Pearson Education Limited
- Scott, D. (2014). *E-books in further education*. In Woodward, H. (ed). *E-books in education: Realizing the vision*. London: Ubiquity Press. (Pp. 9-14) [**e-book**]
- Scullin, N. (2015). *Attitudes towards and use of e-books at the University of Canterbury*. School of Information Management. researcharchive.vuw.ac.nz
https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Scullin%2C+N.+%282015%29.+Attitudes+towards+and+use+of+e-

books+at+the+University+of++Canterbury.+School+of+Information+Management&btn
G=#d=gs_cit&u=%2Fscholar%3Fq%3Dinfo%3AtA-
4ITDNp4YJ%3Ascholar.google.com%2F%26output%3Dcite%26scirp%3D0%26hl%3D
en

- Shelburne, W.A. (2009). E-book usage in an academic library: user attitudes and behaviours. *Library Collections, Acquisition & Technical Services*, 33, 59-72
- Shepherd, J.A., Grace, J.L. & Koch, E.J. (2008). Evaluating the electronic textbook: Is it time to Dispense with the paper text. *Teaching of Psychology*, 35(1), 2-5
- Shi, W.W. (2009). An empirical research on users' acceptance of smart phone online application software. *Paper presented at the International Conference on Electronic Commerce and Business Intelligence*. IEEE
- Shin, D. (2010). Understanding e-book users: Users and gratification expectancy model. *New Media & Society*, 13(2), 260-270.
- Shirattudin, N., Hassan, S. & Landoni, M., (2003). "A usability study for promoting e-Content in Higher education". *Educational Technology & Society*. 6(4), 112-124
- Shiratuddin, N., Landoni, M., Gibb, F., & Hassan, S. (2004). E-book technology and its potential applications in distance education. *Journal of Digital Information*, 3(4).
- Singleton, R.A. & Straits, B.C. (2010). *Approaches to social research* 5th ed. Oxford: OUP.
- Slade, E., Williams, M., Dwivedi, Y. & Piercy, N. (2014). Exploring consumer adoption of proximity mobile payments. *Journal of Strategic Marketing*, 1(1), 1-15
- Slater, R. (2010). Why Aren't E-Books Gaining More Grounds in Academic Libraries? E-Book Use and Perceptions: A Review of Published Literature and Research. *Journal of Web Librarianship*, 4(4), 331 – 351. DOI: 10:1080/19322909.2010.525419
- Smith, S. (2012). *Which is more convenient- an ebook or a regular book?*
<https://www.quora.com/Which-is-more-convenient-an-ebook-or-a-regular-book>

- Tai, Y. M., & Ku, Y. C. (2013). Will stock investors use mobile stock trading? A benefit-risk Assessment based on a modified UTAUT models. *Journal of Electronic Commerce Research*, 14(1), 67-84
- Taylor, L. (2012). The opportunities and challenges in the adoption of e-books in academic law libraries. *Canadian Law Library Review*, 37(4), 180-182
- Tees, T. (2010). E-readers in academic libraries: A literature review. *Australian Library Journal*, 59(4): 180-186. Retrieved from <http://pewinternet.org/media/files/report/2010/pip/>
- Teo, A.C., Tan, G.W.H., Ooi, K.B., Hew, T.S. & Yew, K.T. (2015). The effects of convenience and Speed in m-payment. *Industrial Management and Data Systems*, 115 (2)
- Thomas, R.M. & Brubaker, D.L. (2000). *Theses and Dissertations: a guide to planning, research and writing*. Available at https://www.amazon.com/Theses-Dissertation-Planning-Research-Writing/dp/0313360944/ref=sr_1_3?s=books&ie=UTF8&qid=1548691642&sr=1-3
- Thompson, S. & Sharp, S. (2009), “E-books in Academic Libraries: Lessons Learned and New Challenges,” *Serials* 22, 2
- Trachtenberg, J. A. (2010b, May 21). E-Books rewrite bookselling. *The Wall Street Journal*, A1
- UniRank (2018). *Top universities in Ghana*. Retrieved on 21st November, 2018. <http://www.4icu.org/bd/>
- University of Ghana (2017). *Facts and figures*. Legon: Public Affairs, University of Ghana.
- University of Ghana (2018). *Institutional Research and Planning Office (IPRO)*
- University of Ghana (2018). *Overview*. Retrieved November 18, 2018 from www.ug.edu.gh/about/overview

University of Leicester Students' Union Annual Report (2014).

Unwin, P. S. & Unwin, G. (Ed.) (2016). *Encyclopaedia Britannica*

Vasileiou, M., Hartley, R. & Rowley, J. (2009). An overview of the e-book marketplace.

Online Information Review, 33, 173-192

<http://dx.doi.org/10.1108/14684520910944454>

Vasileiou, M., Hartley, R. & Rowley, J. (2012). Perspectives on the future of e-books in libraries in universities. *Journal of Librarianship and Information Science*, 44(4), 1217-1226. DOI: 0:1122/096/000611434759

Venkatesh, V. & Davis, F.D. (2000). A theoretical extension of the technology acceptance model: four longitudinal field studies. *Management Science* 46 (2), 186-209. doi.org/10.1287/mnsc.46.2.186.11926

Venkatesh, V., Morris, M.G., Davis, G.B. & Davis, F.D. (2003). User Acceptance of Information Technology: towards a unified view. *MIS Quarterly*, 27 (3), 425-478

Venkatesh, V., Thong, J. Y. L., & Xu, Xin (2012). Consumer assistance and use of information Technology: extending the UTAUT1. *MIS Quarterly*. 36 (1), 157-178

Wahl, J. (2018). *What is an E-book?: Understanding why they work and how to make your own.* <https://learn.g2.com/What-is-an-ebook> Retrieved on 27/8/20

Walters, W. H. (2013a). E-Books in Academic Libraries, Challenges for Acquisition and Collection Management Portal. *Libraries and the Academy*, 13 (2), 187–211. DOI: 10:1353/pla.2013.0012

Walters, W. H. (2013b). E-books in academic libraries: challenges for sharing and use. *Journal of Librarianship and Information Science* 46 (2), 85-95 Retrieved 16/10/18 <http://lis.sagepub.com/content/early/2013/05/08/0961000612470279>

- Walters, W. (2013c). E-books in academic libraries: Challenges for discovery and access. *Serials Review* 39, 97-104 10.1080/00987913.2013.10765501
- Walton, E. W. (2013). Why undergraduate students choose to use e-books. *Journal of Librarianship and Information Science*, 46(4), 263-270
- Walton, E. (2007). Faculty and student perceptions of using e-books in a small academic institution. ACRL Thirteenth National Conference, March 29th April 1, 2007, Baltimore, Maryland. Retrieved August 2, 2019, from <http://www.ala.org/acrl/sites/ala.org.acrl/files/content/conferences/confsandpreconfs/national/baltimore/papers/92.pdf>
- Wang, S. & Bai, X. (2016). University students awareness, usage and attitude towards e-books: Experience from China. *The Journal of Academic Librarianship*, 42 (3), 247-258
Retrieved from DOI: <https://doi.org/10.1016/j.acalib.2016.01.001>
- Wells, C. L. (2012). *Do students using electronic books display different reading comprehension and motivation levels than students using traditional print book?*
<http://core.ac.uk/download/pdf/58824756.pdf>. Retrieved 10/10/18
- Wells, D. & Sallenbach, A. (2015). Books and e-books in an academic library. *Australian Library Journal*. 64(3), 168 – 177. DOI: 10:1080700049670.2015.1041216.
- Widdersheim, M. M. (2014). E-lending and libraries: towards a de-commercialization of the commons. *Progressive librarian* 42. 95-114 Wikipedia.org Retrieved 16/10/18
- Williams, E. (2011). Copyright, e-books and the unpredictable future. *Publishers Research Quarterly*, 27(1): 19-25. DOI: 10.1007/s12109-010-9196-x
- Wilson, G. (2011). No Shelf Required: E-Books in Libraries. *Ohio American Library Association. Administration*, 50(576), 543 – 569.

- Wilson, R. (2003). E-Book Readers in Higher Education. *Educational Technology & Society*, 6(4), 8–17.
- Wilson, T. D. (2016). Theoretical approaches to e-book research. *Libellarium: Journal for the Research of Writing, Books and Cultural Heritage Institutions* 9(1).
dx.doi.org/10.15291/libellarium.v9:1.277
- Woody, W. D., Daniel, D. B., & Baker, C. A. (2010). E-books or textbooks: Students prefer textbooks. *Computers & Education*, 55(3), 945-948.
- Woody, W. D. & Daniel, D. B. (2013). “E-textbooks at what cost? Performance and use of electronic versus print texts”. *Computers in Education*, 62(1), 18-23.
<https://doi.org/10.1016/j.compedu.2012.10.016> Accessed 10/10/18
- Worden, A. (2014). *E-books at the university of Portsmouth: A ten year success story*. In Woodward, H. (ed). *E-books in education: Realizing the vision*. London: Ubiquity Press. DOI: <http://dx.doi.org/10.5334/bal.h>
- Yakubu, M. N., & Dasuki, S. I. (2019). Factors affecting the adoption of e-learning technologies among higher education students in Nigeria: A structural equation modelling approach. *Information Development*, 35(3), 492-502.
- Yang, K. (2010). Determinants of US consumers mobile shopping services adoption: implications for designing mobile shopping services. *Journal of Consumer Marketing*, 27(3), 262-270
- Yau, H. K., Cheng, A. L. F., & Ho, W. M. (2015). Identify the Motivational Factors to Affect the Higher Education Students to Learn Using Technology. *Turkish Online Journal of Educational Technology-TOJET*, 14(2), 89-100.
- Yaya, J.A. (2015). Prospects and challenges of e-books in school media services in Nigeria: the way forward. *International Journal of Education and Information*

Technology, 1(3), 92-98 www.aiscience.org/journal/ijeit Accessed 14/12/18

Yaya, J. A.; Achonna, A. U. & Osisanwo, T. (2014). Competitive Intelligence: A Tool for

Effective Job Performance in Academic Library. *Sky Journal of Educational Research*,

2(4), 20 – 27.

Yaya, J. A. & Adeyokun, B. O. (2011). Digitization of library services in Nigeria: From

traditional to electronics library. *Jewel Journal of Librarianship*, 3, 127-134.

Yeoh, S.K. & Chan, B.Y.F. (2011). Internet banking adoption in Kuala Lumpur: an application

of UTAUT model. *Journal of Business and Management* 6(4), 161-167

Yin, R.K. (2003). *Case study research: design and methods*. 3rd ed. Thousand Oaks: Sage

Young, J. R. (2010). To save students money, colleges may force a switch to e-textbooks. *The*

Chronicle of Higher Education, 57 (1), 1-8. Accessed 27/8/20

Yu, C.S. (2012). Factors affecting individuals to adopt mobile banking: empirical evidence from

the UTAUT model. *Journal of Electronic Commerce Research*, 13(2), 104-121

Zamboni, (2018). What is the meaning of sample size? Retrieved From

<https://sciencing.com/meaning-sample-size-5988804-html> Accessed on 24/9/20

Zell, H.M. (2013). Print vs electronic, and the ‘digital revolution’ in Africa. *African Book*

Publishing Record, 39(1), 1-19

Zhang, L., Zhu, J. & Liu, Q. (2012). A meta-analysis of mobile commerce adoption and the

Moderating effect of culture. *Computer in Human Behavior*, 28(8), 1902-1911

APPENDIX I

The Use of E-Books for Learning and Research by Postgraduate Students in Ghana: A Study of University of Ghana and Ghana Technology University College

Questionnaire

I am an MPhil Information Studies student of University of Ghana, conducting a research on the above topic. I would be very grateful if you could spare a few moments (about 10 minutes) to complete the questionnaire to the best of your ability. Your confidentiality is fully assured and the information you provide will be used for academic purposes only. Thank you.

Please Tick [] as appropriate

Section A: Demographic Data

1. Gender: Male [] Female []
2. Please your Age.....
3. Institution
(a) University of Ghana [] (b) Ghana Technology University []

Section B: Awareness of e-books

4. Do you know what an e-book is? Yes [] No []
5. Are you aware of the existence of e-books in your institution? Yes [] No []
6. If yes, in what way were you made aware of the existence of the e-books?
 - (i) Colleagues []
 - (ii) Notice Board []
 - (iii) Library Website []
 - (iv) Library Orientation []
 - (v) Library Staff []
 - (vi) Through a friend []
 - (vii) Others (please specify)
7. Have the e-books been well publicized to students of your institution? Yes [] No []

Section C Usage of e-book

8. Do you use e-books Yes [] No []
9. Were you given any training in the use of e-books? Yes [] No []

10. How frequently does your institution provide training on the use of e-books?

- (a) Monthly
- (b) Bi-monthly
- (c) Once every semester
- (d) Not at all
- (e) Do not know

11. Why do you use e-books? (Please tick all that apply)

- (a) Easy to use
- (b) It saves time
- (c) To support research work
- (d) It is convenient to use
- (e) Easy to cut and paste
- (f) To put up with technological changes
- (g) Important text can be highlighted
- (h) Easily accessible 24/7
- (i) There is no print equivalent
- (j) Look out for answers to specific questions
- (k) To read as a recommended text
- (l) Others (please specify)

12. For what purpose do you read an e-book?

- (a) Academic
- (b) Leisure
- (c) Both
- (d) Others (Please specify)

Section D Factors that influence the use of e-books

13. To what extent do you agree with the following statements on the factors influencing your intention to use an e-book? Where: (1) Strongly Disagree (2) Disagree (3) Neutral (4) Agree (5) Strongly Agree (Please tick all that apply)

Statements	1	2	3	4	5
1. Aid in gaining knowledge					
2. Easy to use					
3. I will use e-book, if my friends are using					
4. Institution providing technical support					
Statements	1	2	3	4	5
5. Have understanding interacting with e-books					
6. Useful in my learning and research					
7. Have the required idea to use e-books					
8. Will manage to use e-book daily					

9. People suggest I use e-books					
10. I intend take advantage of e-book					
11. Is useful in my learning and research					
12. E-books are as good as printed books					
13. The College should acquire both print/e-book					
14. The College should acquire only print book					
15. The College should acquire only e-book					
16. I do not have to borrow e-book					

14. In your opinion, what are the factors that influence your use of e-books

.....

Section E Benefits/Importance of e-books

15. Does the use of e-books have any impact on your learning and research? Yes [] No []

16. If yes, what impact does it have on your learning and research? (Please tick all that apply)

- (a) It enables me retrieve current information []
- (b) I can retrieve several information []
- (c) Can retrieve materials that the print format is not available []
- (d) Can access several information simultaneously []
- (e) Can download several information []
- (f) Others (Please specify)

17. How useful are e-books to your learning and research?

- (a) It is convenient to scroll up and down within the e-book []
- (b) It is easy to find relevant information in the e-books []
- (c) The font size is easy to read []
- (d) The screen is clear to read []
- (e) I find e-books useful to my learning and research work []
- (f) Others (Please specify)

Section F Perception and attitude towards the use of e-books

18. How important is the use of e-books to your learning and research?

- (a) Important []
- (b) Very important []
- (c) Unimportant []
- (d) Moderate []
- (e) Extremely important []

19. Do the e-books provided by your institution meet your learning and research requirements? Yes [] No []

20. What of the following features of e-book that encouraged you to go for it?
- (a) It enables me to have my own collection []
 - (b) It allows me to have instance access to contents []
 - (c) It enables me to bookmark pages []
 - (d) It can be accessed anywhere (is mobile) []
 - (e) Others (Please specify)

21. Do you intend using e-books in future? Yes [] No []

Section G Challenges in the use of e-books

22. Please indicate the challenges you face when using an e-book (Please tick all that apply)

- (a) Internet slow []
- (b) Difficult to sift through several titles available []
- (c) Difficult to read from the screen []
- (d) Pages take too long to navigate []
- (e) Lack of sufficient knowledge in the use of the e-book []
- (f) Could not get off campus access []
- (g) Lack of choice of e-book titles important to my research/learning []
- (h) Low Internet Bandwidth []
- (i) Password limitation []
- (j) Lack of quality content of information []
- (k) Lack of interest in the use of e-books []
- (l) Power outage []
- (m) Difficult to discover e-books []
- (n) Others (Please specify)

23. Do you have any other comment on the use of e-books and its impact on studies? (a) Yes [] No []

24. If yes, kindly outline them

.....

.....

.....

Thank you for your participation

APPENDIX 2



UNIVERSITY OF GHANA
DEPARTMENT OF INFORMATION STUDIES
SCHOOL OF INFORMATION AND COMMUNICATION STUDIES

October 11, 2018

Ref. No.:

The Dean
School of Graduate Studies
University of Ghana
Legon

Dear Sir,

INTRODUCTORY LETTER

I write to introduce to you Mr. Ebenezer Kwadjo Pobi, an M. Phil student of the Department of Information Studies, University of Ghana, Legon.

He is researching on the topic "The use of e-books for learning and research by postgraduate students in Ghana: A comparative study of University of Ghana and Central University".

Please assist him with the necessary information that he will need to undertake the research.

Thank you.

Yours faithfully,

Dr. Emmanuel Adjei
Head of Department

1 PGrads by College
-2018/2019
by 29/11/18.

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UNIVERSITY OF GHANA
DEPARTMENT OF INFORMATION STUDIES
SCHOOL OF INFORMATION AND COMMUNICATION STUDIES

October 25, 2018

Ref. No.:

The Dean
School of Graduate Studies
Ghana Technology University College
Tesano - Accra

Dear Sir,

INTRODUCTORY LETTER

I write to introduce to you Mr. Ebenezer Kwadjo Pobi, an M. Phil student of the Department of Information Studies, University of Ghana, Legon.

He is researching on the topic **“The use of e-books for learning and research by postgraduate students in Ghana: A comparative study of University of Ghana and Ghana Technology University College”**.

Please assist him with the necessary information that he will need to undertake the research.

Thank you.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Emmanuel Adjei', written over a circular stamp.

Dr. Emmanuel Adjei
Head of Department

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