



**UNIVERSITI PUTRA MALAYSIA**

***STUDENTS' SATISFACTION WITH THE AVAILABILITY OF  
E-RESEOURCES, INFRASTRUCTURE, STAFF COMMITMENT AND  
STUDENTS INVOLVEMENT IN COLLEGES OF EDUCATION IN  
NORTHEASTERN NIGERIA***

**UMAR BIZI BULAMA**

**FPP 2016 8**



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NORTHEASTERN NIGERIA**

**By**

**UMAR BIZI BULAMA**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in  
Fulfillment of the Requirements for the Degree of Master of Science**

**October 2016**

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## **DEDICATION**

This thesis is dedicated to my beloved Parents, my wife and my little Children



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the Degree of Master of Science

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By

**UMAR BIZI BULAMA**

**October 2016**

**Chairman : Shaffe bin Mohd Daud, PhD**  
**Faculty : Educational Studies**

The study attempted to examine the students' satisfaction with the availability of e-resources, students' satisfaction with the availability of infrastructure, students' satisfaction with the staff commitment and students' involvement in using the e-resources in Colleges of Education in Northeastern Nigeria. This is a descriptive correlational study and using questionnaires as the instruments. The study covers 5 colleges of education, and only NCE level 3 students were involved in Northeastern Nigeria, which gives the total population (N) of 439. Out of 439 students population, 406 were chosen samples and convient sampling technique. The SPSS version 22 was used to run the analysis.

Descriptive analysis was used to determine the level of students' satisfaction with the availability of e-resources is moderate ( $M = 2.75$ ;  $SD = 0.57$ ), student's satisfaction with the availability of infrastructure is low ( $M = 1.09$ ;  $SD = 0.56$ ), students' satisfaction with the staff commitment is moderate ( $M = 3.11$ ;  $SD = 0.71$ ) and the students' involvement in using the e-resources is also at a moderate level ( $M = 3.10$ ;  $SD = 0.70$ ). An independent sample t-test was conducted to compare the difference in students' satisfaction with the availability of e-resources based on gender. The findings show that there is no significant difference in the mean scores for males ( $M = 2.31$ ;  $SD = 0.68$ ) and that of females ( $M = 2.31$ ;  $SD = 0.69$ );  $t(406) = 3.42$ ,  $p = .001$ .

The analysis shows that there is a significant difference in age groups on students' satisfaction with the availability of e-resource ( $F_{(2, 403)} = 11.109$ ,  $p = .000$ ). Therefore, the Post-Hoc Multiple comparison test based on Tukey HSD indicated a significant difference between the respondents in age groups of 18 – 24 year ( $M = 2.53$ ,  $p < .05$ ); respondents with age groups of and 25 – 31 years ( $M = 2.53$ ,  $p < .05$ ); and 32 years and above ( $M = 6.70$ ,  $p < .05$ ). The analysis revealed that there is a significant difference in college groups on students satisfaction with the availability of e-resources ( $F_{(4, 401)} = 60.009$ ,  $p = .000$ ). Thus, the Post-Hoc Multiple comparison based on Tukey HSD revealed a significant difference between the respondent in college groups of COE Hong ( $M = 3.42$ ,  $p < .05$ ); COE Azare ( $M = 3.42$ ,  $p < .05$ ); COE Gashua ( $M = 6.20$ ,  $p < .05$ ); COE Zing ( $M = 3.93$ ,  $p > .05$ ); and COE Biu ( $M = 2.55$ ,  $p < .05$ ). Also, the findings

indicated that there is a weak and significant relationship between students' satisfaction with the availability of e-resources and infrastructure in colleges of education ( $r = .192, p < .05$ ); there is a medium and significant relationship between students' satisfaction with the availability of e-resources and staff' commitment in colleges of education ( $r = .455, p < .05$ ); and there is a medium and significant relationship between students' satisfaction with the availability of e-resources and students' involvement in Colleges of Education ( $r = .430, p < .05$ ).

However, based on the findings of this study, there is a need to improve the students' satisfaction with the availability of e-resources in Colleges of Education in Northeastern Nigeria. Also, the needs to improve the students' satisfaction with the availability of infrastructure, students' satisfaction with the staff commitment and students' involvement in using the e-resources among students in Colleges of Education in Northeastern Nigeria in order to meet up with the needs and demands of the students.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Master Sains

**KEPUASAN PELAJAR DENGAN KETERSEDIAAN E-SUMBER,  
INFRASTRUKTUR, KOMITMEN KAKITANGAN DAN PENGLIBATAN  
PELAJAR DI KOLEJ PENDIDIKAN DI TIMUR LAUT NIGERIA**

Oleh

**UMAR BIZI BULAMA**

**Oktober 2016**

**Pengurus** : Shaffe bin Mohd Daud, PhD  
**Fakulti** : Pengajian Pendidikan

Kajian ini bertujuan untuk mengkaji hubungan di antara kepuasan pelajar dengan ketersediaan e-sumber, infrastruktur dan komitmen kakitangan serta penglibatan pelajar dalam menggunakan e-sumber di kolej pendidikan di Timur Laut Nigeria. Kajian ini adalah berbentuk deskriptif korelasi serta menggunakan soal selidik sebagai instrumen. Kajian ini melibatkan lima kolej pendidikan dan hanya pelajar tahap NCE 3 yang terlibat di Timur Laut Nigeria, yang memberikan jumlah populasi (N) 439. Daripada 439 pelajar, teknik persampelan sesuai digunakan untuk memilih saiz sampel (S) 406. SPSS versi 22 telah digunakan untuk menjalankan analisis.

Analisis deskriptif telah digunakan untuk menentukan tahap kepuasan pelajar dengan ketersediaan e-sumber adalah sederhana ( $M = 2.75$ ;  $SD = 0.57$ ), kepuasan pelajar dengan ketersediaan infrastruktur adalah rendah ( $M = 1.09$ ,  $SD = 0.56$ ), kepuasan pelajar dengan komitmen kakitangan adalah sederhana ( $M = 3.11$ ,  $SD = 0.71$ ) dan penglibatan pelajar dalam menggunakan e-sumber juga pada tahap sederhana ( $M = 3.10$ ,  $SD = 0.70$ ). Ujian-t sampel bebas telah dijalankan untuk membandingkan perbezaan kepuasan pelajar dengan ketersediaan e-sumber berdasarkan jantina. Hasil kajian menunjukkan bahawa tidak ada perbezaan yang signifikan dalam skor min bagi lelaki ( $M = 2.31$ ,  $SD = 0.68$ ) dan perempuan ( $M = 2.31$ ,  $SD = 0.69$ );  $t(406) = 3.42$ ,  $p = .001$ .

Analisis menunjukkan bahawa terdapat perbezaan yang signifikan dalam kumpulan umur terhadap kepuasan pelajar dengan ketersediaan e-sumber ( $F(2, 403) = 11,109$ ,  $p = .000$ ). Ujian, Post-Hoc perbandingan berganda berdasarkan Tukey HSD menunjukkan perbezaan yang signifikan antara responden dalam kumpulan umur 18 - 24 tahun ( $M = 2.53$ ,  $p < .05$ ); kumpulan umur 25 - 31 tahun ( $M = 2.53$ ,  $p < .05$ ); dan 32 tahun dan keatas ( $M = 6.70$ ,  $p < .05$ ). Analisis menunjukkan bahawa terdapat perbezaan yang signifikan dalam kumpulan kolej yang melibatkan kepuasan pelajar dengan ketersediaan e-sumber ( $F(4, 401) = 60,009$ ,  $p = .000$ ). Ujian, Post-Hoc perbandingan Pelbagai berdasarkan Tukey HSD menunjukkan perbezaan yang signifikan antara responden dalam kumpulan kolej COE Hong ( $M = 3.42$ ,  $p < .05$ ); COE Azare ( $M = 3.42$ ,  $p < .05$ ); COE Gashua ( $M = 6.20$ ,  $p < .05$ ); COE Zing ( $M = 3.93$ ,  $p < .05$ ); dan COE Bui ( $M = 2.55$ ,  $p < .05$ ). Selain itu,

dapatan kajian menunjukkan terdapat hubungan yang lemah dan signifikan antara kepuasan pelajar dengan ketersediaan e-sumber dan infrastruktur di kolej pendidikan ( $r = .192, p < .05$ ); terdapat hubungan sederhana dan signifikan antara kepuasan pelajar dengan ketersediaan e-sumber dan komitmen kakitangan di kolej pendidikan ( $r = .455, p < .05$ ); dan terdapat hubungan sederhana dan signifikan antara kepuasan pelajar dengan ketersediaan e-sumber dan penglibatan pelajar di Kolej Pendidikan ( $r = .430, p < .05$ ).

Berdasarkan kepada hasil kajian ini, terdapat keperluan untuk meningkatkan kepuasan pelajar dengan ketersediaan e-sumber di kolej pendidikan di Timur Laut Nigeria. Juga, keperluan untuk meningkatkan kepuasan pelajar dengan kemudahan infrastruktur, kepuasan pelajar dengan komitmen kakitangan dan penglibatan pelajar dalam menggunakan e-sumber dalam kalangan pelajar di kolej pendidikan di Timur Laut Nigeria dalam usaha untuk memenuhi keperluan dan permintaan para pelajar.





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I certify that a Thesis Examination Committee has met on 26 July 2016 to conduct the final examination of Umar Bizi Bulama on his thesis entitled "Students' Satisfaction with the Availability of E-Resources, Infrastructure, Staff Commitment and Students' Involvement in Colleges of Education in Northeastern Nigeria" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Master of Science.

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## LIST OF ABBREVIATIONS

ALA	American Library Association
AAU	African Universities Association
B.SC.	Bachelor of Science
DDC	Dewey Decimal Classification Scheme
DFID	Department for International Development
CD-ROM	Compact Disc Read-Only-Memory
TETF	Tertiary Education Trust Fund
ICT	Information and Communication Technology
LIS	Library and Information Science
ND	National Diploma
M.S.C	Master of Science
MARC	Machine Random Access Memory
NLA	Nigerian Library Association
NCCE	National Commission for Colleges of Education
NPE	National Policy on Education
NCE	Nigeria Certificate in Education
OPAC	Online Public Access Catalogue
UNICEF	United Nations International Children and Educational Fund
USAID	United States Agency for International Development

# CHAPTER 1

## INTRODUCTION

### 1.1 Background of the Study

In recent years, academic libraries have experienced a period of transformation, characterized by a transformation of spaces and electronic resources designed to better serve students and improve the quality of library (Howie, 2013). This expansion of libraries both computer-generated spaces and online resources (Howie, 2013). Similarly, the development in accessing e-resources meaning that students are spending less time in the physical library and more time on online searching of e-resources (Direction, 2010; Singh, 2011). However, visiting the physical academic libraries have significant influence in students satisfaction with the availability of e-resources over the last ten years (Cronin and O'Brien, 2009).

Today, we are living in the era of information. The information is active and everlasting resources have become increasing important component of academic library collections (Thanuskodi, 2011). This is due to the continuous development of e-resources and its impact on academic library policies, changes and demands of students satisfaction for the extensive uses of e-resources within a short period of time. With the increasing of e-resources, the traditional libraries are transferring from print materials to e-resources whereby providing access to information resources is considered more important than preserving it. E-resources are resources in which information is stored electronically through electronic system and network. These e-resources are comprised of online public access catalogue (OPACS), Compact Disc Read-Only Memory (CD-ROMs), Online database, e-journals, e-books, internet resources, print-on-demand (POD), e-mail publishing, wireless publishing, electronic link and web publishing etc (Sharma, 2009).

The purpose of any academic library is to support teaching, learning and research purposes among students with the availability of electronic information resources. The following are purpose of the academic library were as to: allows students to search for the e-books or other documents related to academic work for the students, allows students to access the search for library databases, provides students access to search for electronic materials, assists students to borrow of e-books, e-journals, helps students to search for general reading, assists students for searching dictionaries and encyclopaedias, allows research assists by the library staff, provides access for study library document, provides access to search for library computers for internet access, provides access to search for study or preparation for examinations, provides access to use computers for word, power-point and excel access (Nzivo and Chuanfu, 2013).

The library has formed important academic resources at higher institutions. The basic of any academic library is to provide quality services that can satisfy students' expectations through a well-achieved library e-resources (Nzivo and Chuanfu, 2013). Similarly, Chiemeke, Longe, Umar, and Shaib (2007) maintained that in each academic library there are e-resources other than classroom that can add to the teaching and learning process to take place by students, and must have access to necessary information resources. Therefore, it can be concluded that, it is important for the

academic library to acquire needed e-resources and information facilities for the students.

The academic library provides services to the students in order to meet up with the standard of information resources. In order to provide effective services to the students, the academic library is to: provides lending services for the students with the availability of e-resources, provides reference services, provides photocopying/reprographic services, offers binding services, offers students education/library orientation services, run reservation services, delivers online public access catalogue services, delivers information resources services and provides collection development services (Hernon and Matthews, 2013; Nzivo and Chuanfu, 2013).

Certainly, the introduction of ICT in academic library has created the opportunity for using e-resources when compared to before library which were only centered on readers' services, reference services, reprographic services, acquisition, cataloguing and classification, current awareness services and selective dissemination of information (Adebowale, 2013).

The advent of electronic resources in academic library has cut the barrier of accessing valuable information resources which were making it difficult to access, especially by students in the developing nations of the world (Idowu, 2009). Despite the several advantages of electronic information resources to students' satisfaction, many students are yet to realize the potential of e-resources initiatives in an academic library due to inadequate facilities such as e-journal, e-books, online searching of database among others (Abuzaid, 2010; Pareek and Gupta, 2013). Even though, in a few places where these facilities are available, there is under-operation of these resources due to the lack knowledge and awareness of using the modern technology (Burgstahler, 2009). Nevertheless, it can be concluded that, the e-resources are very essential tools for the students, researcher and scholarly reading.

### **1.1.1 Colleges of Education**

The colleges of education are the "train –the trainers" colleges established to train and equip teachers in their state to functions (NCCE, Newsletter, 2014). The National Commission for Colleges of Education (NCCE) is the regulatory body for all colleges in Nigeria. A study of virtual library (e-resources) in four tertiary institutions lead by Gbadamosi (2011) described the academic library e-resources is yet to be given adequate attention they deserve by various colleges in Nigeria. Therefore, the Federal Government of Nigeria through National Communication Commission (NCC) under Millennium Development Goals Programmes (MDGS) initiated on e-resources projects to cover all colleges (Letcher and Neves, 2010).

Colleges of Education have been making a valuable contribution to the national growth and development by producing competent young teachers with the necessary skills required for teaching profession and learning (Ebisine, 2014). There are 47 State Colleges of Education in Nigeria and in which 5 state colleges situated in the Northeastern Nigeria. These state colleges are: College of Education Hong, Adamawa state; College of Education Azare, Bauchi state; College of Education Waka- Biu, Borno state; Gombe, College of Education Zing, Taraba state, and College of

Education Gashua, Yobe State. Thus, it can be concluded, colleges were established in order to train the pre-service teachers, students with a National Certificate in Education (NCE).

### **1.1.2 E-library**

The ideas of electronic, interconnected, digital, virtual libraries have been existing many years ago, though until the early 1990s the debate on electronic library became well pronounced (Morgan and Atkinson (2000). According to Aina, (2004) defined electronic library as a library that consists of materials and services in electronic formats rather than the print format. Likewise, Adebowale, (2013) on the other hand termed electronic library as providing access to e-books, e-journals, online references, web-resources, and web-catalogues. Therefore, e-library resources are valuable research tools which supplement print-based resources in any traditional library that provide access to information for students via the internet from a close or far distance (geographical location) (Sabouri, et al., 2010). Moreover, the students most often make themselves available in the library to access e-resources (Yu, 2008).

What is being referred to as e-library in Nigerian is known as halls in the advanced countries of the world, because information halls refer to a physical space, usually in an academic library environment, where any and all can participate in the process of information research, gathering and invention (Esther, 2014). And this shows that the e-library and information halls share the same nature and characteristics because both deal with the combination of both physical and virtual spaces. It is also important to note that, the e-library that gives the opportunity to endeavor in the virtual space. E-library, covers the technologies that enable the virtual technology to perform, and access to the virtual space is made real through the e-resources (Joshipura, 2008).

According to Issa, Blessing, and Daura (2009) the term e-library is used synonymously with “digital”, “universal”, “future”, “community”, and “library without walls”. It has been defined by different scholars, depending on individual and organizational perspective. Also, Baro, Eberechukwu Eze, and Nkanu (2013) perceived e-library as a library that store information electronically and made it accessible to students through electronic systems and networks. Gbadamosi, (2012) describes e-library as an entire library which is available through online computers and databases. However, Kotso (2010) refers to e-library as a way of assisting the research process of collecting, preserving and making available a collection of information resources relevant to their community. In a nutshell, e-library refers to collection of library resources in electronic formats which can be accessed either inside or outside the library.

### **1.1.3 Benefit of E-library**

The benefits derived from the e-library are expected to have a positive influence on Nigerian Libraries. Thus, the Nigerian academic library is to: offers quicker and easier ways of accomplishing workload, good networking that will assist students in searches of e-resources, improves adequate ICT for easy access of e-resources by the students', adequate ICT facilities that will assist the students' in searching of information resources, support policy roles and approaches of ICT in Nigeria libraries, adequate provision of national policy on ICT that will help students to improve their ICT skills,



qualified ICT personnel; provide adequate support of ICT facilities in order to handle the indexing cataloguing, reference and information retrieval services, circulation, serial control/management and technical services (Henriatta, 2005).

Furthermore, the e-library has an important role (Rafiq and Ameen 2012). The benefit of e-library has an important role in students' satisfaction with the availability of infrastructure, students' satisfaction with the staff commitment, students' involvement in using the e-resources on students' satisfaction with the availability of e-resources in Nigeria. The benefit of e-library in colleges of education is one of the most popular means of getting useful information for students (Adetimirin and Omogbhe, 2011; Ekoja and Gbaje, 2012). The benefits of e-library is to ease access, time-saving, variety of resources, availability of search tools, no physical space limitation and allows different students' to search for available of e-resources simultaneously at a particular time without any disturbances and delays (Adetimirin et al., 2011).

#### **1.1.4 Students' Satisfaction**

The concept of students' satisfaction has attracted much attention in recent years and became one of the major concerns of all educational institutions. Satisfaction can be defined as a user's/students' post-purchase evaluation of a product or service (Butt and ur Rehman, 2010; Malik, Danish, and Usman, 2010). A key motivation for the growing emphasis on student satisfaction is that higher students' satisfaction can lead to a attracting new students and maintaining the existing ones (Butt and Rehman, 2010). Similarly, Mosadegh Rad and Hossein (2006) defined it as the considered successful which effects in one's satisfaction.

According to Meletiou, (2010) study that is based on McMurdo (1980) and Whitehall (1992) categorizes a number of library satisfaction measurements: Firstly, library operations shares to access to the physical library, hours of operation, internal air and environment, and availability of reading rooms. Secondly, information, which is connected to signage and labelling, techniques and guides, and also database usage and usability. Thirdly, collection quality, whether collection is up-to-date and relevant to the needs of students. Fourthly, equipment, which are facilities such as photocopy machines, computers and printers, multimedia equipment and microfilm readers. Fifthly, services comprise a range of helps that add value by providing the line between the "collection" and the "students". This is how the "production" basics of the library are organized with the "encouraging" of the contribution follow-on in operational usefulness. Library services comprise of student friendliness of physical and online collections, availability of website, management of reference only collection, courtesy and knowledge of staff, lending rules and penalties, rate at which returned items are shelved and rate at which collection is updated to match course requirements. Also, Meletiou, (2010) recommends a sixth dimension which relates to ordering of material and inter-library loans.

Students' satisfaction is very vital in defining academic library at the higher institutions. To remain competitive, it is important that the institution continuously acquire, maintain, and build stronger relationships and the level of students' satisfaction (Muhammed, Rizwan, and Ali 2010). Also, Sir, (2013) revealed that satisfaction has been positively associated with students and Colleges. Students' satisfaction is a fulfillment of services by which students can meet up with the availability of e-

resources (Sivathaasan and Chandrasekaran, 2013). These studies suggest that, satisfaction provides a means of fulfillment by which students can meet up his/her information needs. Students' satisfaction is not restricted to the content of their syllabus only, rather it requires up-to-date information such as information resources (e-resources), e-books, e-journal, e-dissertations, CD-ROM for searches of services, online public access catalogs, full-text databases, scholarly websites, on-line databases, pre-print archives and bibliographies in order to meet up with the information resources (Esther, 2014 and Fabunmi, 2012).

Students' satisfaction is one of the most important factors for establishing any academic library. Because students are the main library users irrespective of their age, gender, education background, socioeconomic and cultural background (Letcher and Neves, 2010). The e-resources assist students in achieving their educational goals on teaching, learning and research purposes (Oyelude, 2011). Therefore, the students' satisfaction with the availability of e-resources are very important factors to be considered because of the e-resources. Based on the previous explanation, it is important to discuss the factors which determine students' satisfaction. This study focuses on understanding the availability of e-resources are mostly lacking as a result of students' satisfaction with the availability of infrastructure, students' satisfaction with the staff commitment, students' involvement in using of e-resources in colleges. This shows that, almost all the colleges of education need to be exposed on how to improve the student satisfaction with the availability of e-resources (Alade, Iyoro, and Amusa, 2014).

#### **1.1.5 E-resources**

The concepts of e-resources have created a lot of debates in current years (Stachokas, 2014). Various scholars view the concept from different angles. According to Abubakar, Daniel, Adetimirin and Airen, (2015) defined are information sources that are available and can be accessed electronically through computer networked facilities as online library catalogue, the internet and World Wide Web (WWW) CD-ROM databases, etc. This can be simply defined as resources that include documents in electronic format that can be accessed via Internet. They are available various forms like e-books, digital libraries, online journal, magazine, e-learning tutors, online test e-journals, e-discussions, e-news, data archives and e-mail online chatting and deliver a collection of data, be it text, image collection, other multimedia products like numerical, graphical mode. E-resources are easily accessible in the remote areas and solve storage problems and control the flood of information (Munira, Nasreen, Ansari, and Bushra, 2010). This has increased the global dissemination of information. E-resources such as e-books, full-text e-journals and online bibliographic databases must be contributed by academic libraries to meet ever-increasing demands from students for remote access to information (Alan Armstrong, Vicki, Victoria, and Edward, 2003).

In this regard, e-resources comprises of electronic databases, electronic books, electronic journals, e-dissertations, online public access catalogs (OPAC), full-text databases, online databases, pre-print archives, scholarly websites, bulletin boards, Computer Disc Random Only Memory (CD-ROM searching services) which can be accessed using electronic devices (Esther, 2014). Also, Yusuf and James-Iwu (2010) explained the e-resources as a vibrant benefit in research accomplishment in all aspects of the disciplines in this century. The college library is charged with the responsibility

of managing resources through the academic library to satisfy the needs of Colleges community. Although, the college libraries as a whole has not fully embraced the new technology, but there is the development through academic libraries which are utilized to manage the resources. However, Ezema (2011) asserted that Nigeria is accepting the e-resources through information and communication technology in their day-by-day activities.

Therefore, the e-resources in academic libraries need to spend more money on computer hardware and software, licensing, training of library staff and students, especially in the area of text selection, scanning, verification and indexing of the materials to be digitized as well as employment of experts with web-technologies skills to support and manage them. Copyright holders have to be contacted and rights obtained. Money is needed to translate content into digital form and to access the resources. A powerful server is required, supported by specialized software and personnel. The server must operate all day, and new materials should constantly be added. Building and sustaining a virtual library requires a proper technological infrastructure such as telecommunication, servers, application platforms and software applications (Gbaje, 2007).

#### **1.1.6 Students' Satisfaction with Availability of infrastructure**

According to Adeyoyin, Ajiboye, Agbeze-Unazi, Onasote, and Akintunde, (2014) revealed that most of the students are experiencing challenges as a result of inadequate availability of infrastructures which is the most basic functions for establishing a sustainable academic library resources. Infrastructure relates to the e-resources which include: electricity power supply, telecommunication system, online public access catalogs and internet facilities. Notwithstanding, the past and current trends of academic library e-resources are still facing the challenges as a result of inadequate infrastructure which has been identified as one of the major factors deteriorating the smooth running of e-resources among students' (Adeniran, 2014).

#### **1.1.7 Students' Satisfaction with the Staff Commitment**

Staff commitment is one of the most basic functions of establishing any academic library in order to satisfy information resources needs of the students. Staff is the heart of any academic library that can play an important role in providing assistance to students in searching information e-resources (Hudron-Kari and Baro, 2014). In general context, the staffs are not fully committed towards the availability of e-resource among students in colleges of education (Ogbenege and Adetimirin, 2013).

#### **1.1.8 Students' Involvement in using the E-resources**

Students' involvement is one of the most important factors towards the e-resource in Colleges. The aim of students in an academic library is to involve him/herself towards the searching of available e-resources for their reading and research purposes (Abubakar, 2015). In general context, the students are not fully involving themselves in using the e-resources such as: e-journals, e-books, e-databases, online public access

catalogue, full-text databases and other sources of information resources for their satisfaction in colleges (Abubakar et al., 2015).

### **1.1.9 Gender of Respondents**

Gender is a significant factor in using the e-resources. The gender has two options of male and female, where they were required to determine the students' satisfaction with the availability of e-resources. According to Bassi and Camble, (2011) described the gender difference in using the e-resources in an academic library showed that out of 5,269 students' 82.4% of the respondents were male, while 17.7% were female. The result suggests that there may be more males in colleges than females, apart from the empirical evidence that, female find it more difficult to find out the e-resources. Also, Bassi and Camble, (2011) revealed that gender is associated with the availability of e-resources, and that male students were more likely to use e-resources than female students.

### **1.1.10 Age of Respondents**

The age of respondents plays an important role in students' satisfaction with the availability of e-resources. The ages of respondent were grouped into three as: 18 – 24 years, 25-31years and above 32 years. According to Agber, (2015) revealed that the age of students has a significant difference in students' satisfaction with the availability of e-resources.

### **1.1.11 Colleges of Education**

The respondents were based on colleges. The college group has an important role in students' satisfaction with the availability of e-resources which is very important. According to Baro, Endouware and Ubogu, (2011) exposed that lack of information for effective e-resources in order to meet their academic information and research.

## **1.2 Statement of the Problem**

The availability of e-resource and how they're used by the students has been a major concern to academic library and information centers World-wide. The reason is not far-made as the provision of e-resources have been the primary focus of libraries irrespective of types and students they served (Simisaye, 2012). According to Issa et al., (2009); Agboola and Bamigboye, (2011) revealed that most of the students are lacking the e-resources in an academic library.

According to Ogunsola and Okusaga, (2008) discovered that lack of infrastructure facilities, low bandwidth, system breakdown and electricity power supply. According to Adegboro, (2010) revealed that lack of resources, power failure and lack of maintenance of e-resources. Also, Fabunmi (2009a) revealed that lack of staff commitment, proper infrastructure which includes: telecommunication, servers, poor students involvement, low-level of staff and software application (Gbaje, 2007; Okiy, 2010).

According to Gbaje and Zakari (2013) revealed that lack of policies has really affected the level of staff commitment in colleges, staff capacity building, equipment and the general preservation issues (Gbaje and Zakari, 2013). Idowu, (2016) exposed that there is a lack of staff commitment on current knowledge of e-resources changes in this 21<sup>st</sup> century. A study was conducted by Hadrian Kari, and Emmanuel Baro, (2014); Imo and Igbo, (2011); Ekoja and Gbaje (2012) revealed that lack of staff commitment students' involvement, inadequate of e-resources subscriptions, improper planning and implementation in using the e-resources are the major problem facing the students' satisfaction with the availability of e-resources.

According to Onohwakpor, (2009) described that there is a relationship between e-resources, infrastructure, staff commitment, students involvement, and services on students' satisfaction with the availability of e-resources. Also, Mulla, (2011) revealed that 30% of the respondents felt that they lack staff commitment to effectively use the e-resources, 31.7% reported a lack of students involvement, while 12% stated that limited infrastructure. Thus, Jha, (2008); Mulla, (2011) described the significant relationship between students satisfaction with the infrastructure, students involvement and staff commitment on students satisfaction with the availability of e-resources in Nigeria.

Infrastructure is one of the basic firsthand information that needs more attention towards the e-resources among students irrespective of their age, gender, cultural background, political differences and educational background (Okoye, 2010 and Abubakar, 2011). E-resources have a relationship with the availability of infrastructure in order to search for e-resources, and store of information which were mostly lacking at colleges as a result of inadequate support of infrastructures (Ogunsola and Okusaga, 2008; Okiki, 2011; Sinha, 2011; Abdulsalami, 2011 and Idowu, 2016).

Staff commitment plays an important role on the availability of e-resources as perceived by the students. This is because the staff are committed towards the e-resources among students was very low (Adegboye, 2010; Hudron-Kari and Baro, 2014). In the context of this research, the researcher wants to investigate the staff commitment with the availability of e-resources as perceived by the students' in Colleges of education.

Students' involvement is a very important factor towards achieving the e-resources. Most of the students in developing countries are left far behind towards the involvement in using of e-resources. Because the nature of the college library is not a conducive environment for learning and searches of the e-resources (Archibong, Ogbiji, and Anijaobi-Idem, 2010 and Abubakar, 2011). In line with this, the researcher wants to investigate the students' involvement in using the e-resources in colleges.

However, there is adequate need to improve on the students' satisfaction with the availability of infrastructure with the e-resources. Also, there is a need to improve students' satisfaction with the staff commitment. The needs for students' involvement in using the e-resources, at the same time also need to improve students' satisfaction with the availability of e-resources. It is very important for any academic e-resources to improve its services towards the students' satisfaction and provides adequate information resources in all formats that can support the college library in achieving their educational goal (Adeniyi and Ajiboye, 2013).

### **1.3 Objectives of the Study**

The general objective of this study is to determine the students' satisfaction with the availability of e-resources, infrastructure, staff commitment and students' involvement in using e-resources in Colleges of Education in Northeastern Nigeria. While the specific objectives are as follows:

1. To determine the level of students' satisfaction in the library of college of education,
2. To determine the level of students' satisfaction with the availability of infrastructure provided by the college of education,
3. To determine the level of students' satisfaction with the staff commitment,
4. To determine the level of students' involvement in using the e-resources,
5. To compare the differences in students' satisfaction with the availability of e-resources based on gender,
6. To compare the differences in students' satisfaction with the availability of e-resources based on age,
7. To compare the differences in students' satisfaction with the availability of e-resources based on college groups,
8. To determine whether there is a significant relationship between students' satisfaction with the availability of e-resources and infrastructure,
9. To determine whether there is a significant relationship between students' satisfaction with the availability of e-resources and perceived staff commitment,
10. To determine whether there is a significant relationship between students' satisfaction with the availability of e-resources and students' involvement.

### **1.4 Research Questions**

The following research questions were raised to guide this study and attempts to provide possible solutions to these questions as:

1. What is the level of students' satisfaction in the library of college of education?
2. What is the level of students' satisfaction with the availability of infrastructure provided by the college of education?
3. What is the level of students' satisfaction with the staff commitment?
4. What is the level of students' involvement in using the e-resources?
5. Is there any significant difference in students' satisfaction with the availability of e-resources based on gender?
6. Is there any significant difference in students' satisfaction with the availability of e-resources based on age?
7. Is there any significant difference in students' satisfaction with the availability of e-resources based on college groups?
8. Is there any significant relationship between students' satisfaction with the availability of e-resources and infrastructure?
9. Is there any significant relationship between students' satisfactions with the availability of e-resources and perceived staff commitment?
10. Is there any significant relationship between students' satisfaction with the availability of e-resources and students' involvement?

## **1.5 Significance of the Study**

Educational sector is growing rapidly all over the world in recent years. Globalization and digital expansion have raised the demand for new and various disciplines in education. Higher education is responsible for improving the quality of learning and students' satisfaction (Butt and Rehman, 2010). The students' satisfaction with the availability of infrastructure, staff commitment and students' involvement in using of e-resources on students' satisfaction with the availability of e-resources among students is very important. Effective use of available e-resources by the students will eventually lead to their satisfaction in colleges of education. Therefore, the significance of this study shall be discussed in three ways, namely theoretical, practical and policy:

The study attempts to offer a better theoretical/model understanding of the students' satisfaction with the availability of infrastructure, students' satisfaction with the staff commitment, students' involvement in using the e-resources on students' satisfaction with the availability of e-resources. A strong theory/model will assist the colleges and organization to improve their library with the application of knowledge and students' satisfaction with the availability of e-resources.

Secondly, the result of this finding will fill the gap on the previous literature and provide adequate empirical information concerning the students' satisfaction with the availability of infrastructure, students' satisfaction with the staff commitment and students' involvement in using the e-resources on students satisfaction, because most of the study is on factors influencing e-library/e-resources among library staff/librarians, while the present study focus on students satisfaction with the availability of infrastructure, students satisfaction with the staff commitment and students' involvement in using the e-resources on students' satisfaction with the availability of e-resources in colleges.

Thirdly, the result obtained shall increase the number of empirical evidences on the students' satisfaction with the availability of e-resources and provide reference information to those who are conducting research on a similar discipline. Although, amongst the practical significance is that, the result of this study may serve as a guide to the stakeholders in determining the appropriate use of e-resources in academic libraries that would effect on infrastructure, staff commitment and students' involvement in the use of e-resources on students' satisfaction with the availability of e-resources.

## **1.6 Limitations of the Study**

This study is only limited to 5 States in Northeastern Nigeria without taking the Gombe State due to insecurity. Secondly, the study covers only infrastructure, staff commitment, and students' involvement in using the e-resources. Thus, the population is limited to NCE 3 students only in colleges. The colleges are: College of Education Hong, Adamawa State, College of Education Azare, Bauchi State, College of Education Biu, Borno State, College of Education Gashu'a, Yobe State and College of Education Zing, Taraba State. The study is a descriptive correlational study. The sample size is (406) and most of them were pre-teachers. The study used questionnaire as means of data collection. The descriptive statistics were used to determine the level of objective one, two, three, four and the objective five to seven is t- test and Anova

analysis and Pearson correlation analysis of the objective eight, nine and tenths. Therefore, this study is relevant at Msc level. The findings would add latest evidence and information on the state of e-resources in the COE in the region. The limitation is worries may arise about the use of opinion as an index factor, specially where the students might not be telling the truth (Ary et al, 2010).

## **1.7 Operational Definition of Terms**

In this study, the definitions of terms are to be explained under-subheading: Academic library, e-library, students' satisfaction, availability, students satisfaction with the availability of e-resources, infrastructure, staff commitment, students' involvement in using the e-resources.

### **1.7.1 Academic Library**

In this context of study, academic library is an organized collection of information resources for the purpose of searching, reading and research purposes by the students (Hussain and Abalkhail, 2013).

### **1.7.2 E-library**

In this study, e-library refers to a collection of information resources in electronic formats that can be accessed by the students' in the library (Ojedokun and Okafor, 2011; Esther, 2014).

### **1.7.3 Students' Satisfaction with the E-resources**

In this study, students' satisfaction with the e-resources is a fulfillment of a students' information needs and expectation by providing adequate access to e-books, e-journals, e-dissertations, CD-ROM, online databases, online public access catalogs, full-text database resources, scholarly websites, archive materials, digitalized bulletin boards, almanacs, bibliographies, directories, institutional repository that would transfer through the e-resources (Jha 2008; Sigala, D'Uggento and Romannazzi, 2006; Sivathaasan, 2013; Sivathaasan and Chandrasekaran, 2013).

The instrument used in this study, was adapted from Esther (2014) on the emergence of digital libraries services in Northwest Nigerian universities: challenges and prospects and modified by the researcher to measure the students' satisfaction on the electronic libraries. All the 14 items were adapted based on the past reviewed research measured using a 5 point Likert scale.

### **1.7.4 Availability**

Availability has been defined as the extent to which clients need for a specific information resources are punctually satisfied and immediate access to known items



sought (Nisonger, 2011). Therefore, in this study, the availability can be considered as a measurement of overall satisfaction of e-resources.

#### **1.7.5 Infrastructure**

In this study, students' satisfaction with the availability of infrastructure refers to the satisfaction of students with information materials in the library. These includes: computer facilities towards the availability of e-resources, internet connectivity, electrical power supply, telecommunication, computer networking, server and sufficient computers for students to access e-books and e-journals (Abubakar, 2012).

The instrument that was used in this study on the infrastructure was modified by the researcher from Ani and Biao, (2005) and Archibong et al. (2010). This instrument has 7 items with 5 points Likert scale .

#### **1.7.6 Staff Commitment**

In this study, students' satisfaction with the staff commitment refer to the act of staff that connects with the commitment in a library work. These can be as a result of the staff towards assisting students towards the e-resources, availability of library services by the staff towards the e-resources, helpfulness of the staff towards the e-resources, knowledge and expertise of the library staff with the e-resources, knowledge of resources, the approachability of staff and inter-library loan coordinated by the library staff with the e-resources (Buchaman, 1974; Klein, Molloy and Brinsfield, 2012).

The instrument used in this study was modified by the researcher from Sivathaasan and Chandrasekaran (2013) on Factor analysis of user satisfaction: A special reference to the library, University of Jaffna, Sri Lanka. The 7 items were chosen from the original instrument on the staff commitment towards the e-resources with a 5 point Likert scale.

#### **1.7.7 Students' Involvement**

In this study, students' involvement in using the e-resources refers to act of involving the students towards searching of information resources in the academic library. This can be as a result of the searching of e-books, e-journals, online searching of group assignments, OPAC searches, current awareness services, downloading of e-resources and selective dissemination of information via online searching (De Klerk, 2006; Klein, Molloy and Brinsfield 2012).

The instrument used in this study on students' involvement was modified from Winters (2004) and it was used in a study titled "California College libraries in the 21<sup>st</sup> century (Winters, 2004)". The 7 items were chosen based on students involvement using 5 points Likert scale.

### **1.7.8 E-resources**

In this study, e-resources refer to as a resources that involve students in using the computer access that provides e-resources. These comprises of e-books, e-journals, e-dissertations, CD-ROM, online databases, online public access Catalogs, full-text database resources, scholarly websites, archive materials, digitalized bulletin boards, almanacs, bibliographies, directories, institutional repository that would transfer via internet (Bajpai et al., 2009).

The instrument used in this study, was adapted from Esther (2014) on the emergence of digital libraries services in Northwest Nigerian universities: challenges and prospects and modified by the researcher to measure the students' satisfaction on the electronic libraries. All the 14 items were adapted based on the past reviewed research measured using a 5 point Likert scale.

### **1.8 Summary**

Generally, the academic library and e-resources have been explained in this chapter and other related terms that are involved, background of the study, a statement of the problem, objective of the study, research questions, significance of the study, limitation of the study, and definition of terms in the study. E-resource in Nigeria is like any other developing countries are still facing a lot of challenges as a result of inadequate infrastructure, staff commitment and students' involvement in using the e-resources on students' satisfaction with the availability of e-resources. It is clearly indicated that, a lot of efforts have been made by the Colleges of Education towards the availability of e-resources. However, it is very important to highlight on students' satisfaction with the availability of e-resources in colleges. The needs to improve on the students satisfaction with the availability of infrastructure, students satisfaction with the staff commitment and students' involvement in using e-resources on students' satisfaction in colleges.

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