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**Influence of E-Library Resources on Science students' Academic Performance of Students of Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekiti**

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**Abstract**

*The study examined the influence of E-Library resources on Science students' academic Performance of Students of Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekiti (BOUESTI). This study used a descriptive survey design as its research method. The area of the study was BOUESTI, Ekiti State. The study covers the schools of the university namely school of science education and the school of pure and applied sciences. The population of this study consisted of One Thousand Two Hundred and Seventeen Students (1,217) undergraduate students of picked across all the departments from the three colleges within the university which comprises of different curriculum of studies. The research included a sample size of 122 students, or 10% of the total population. A random sampling approach was used. A questionnaire titled "Influence of Availability, Utilization and Accessibility of E-Library Resources on Science Students' Performance (a case study of BOUESTI, Ekiti Statei)" was used as the instrument for data collection. The questionnaire was formulated based on the two (2) research questions that were formulated to guide the study. The instrument was subjected to reliability and validity mechanism. All the selected samples of the science students at BOUESTI, Ekiti State. were given the questionnaire. The researcher visited the students one-on-one in the various lecture halls during lectures and administered the questionnaire to them, giving them time to fill it out before it was collected. The data was structured in a tabular format to provide raw scores, which were then transformed to frequency and simple percentages. Based, on the findings, appropriate conclusion and recommendations were made.*

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**Keywords:** E-Library, E-Library Resources, Science Students, academic performance.

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**Introduction**

The primary purpose of universities is to support and cater to the host institution's teaching, learning, and research operations. For effective and efficient teaching, learning, and research, university students use libraries to find accurate, sufficient, relevant, and current information in the form of electronic resources. The library's users include undergraduates, postgraduate information professionals, personnel, and other researchers from outside the university community who wish to use the library. In order to prepare for class assignments, seminars, term papers, dissertations, theses, and projects, undergraduates are forced to study more after class.

Access to information is more crucial than ever before in today's environment for academic work at all stages of higher education. Academic libraries are in charge of providing information resources to the whole academic community (Quadri, 2011). Libraries make electronic sources of information available to users because e-learning adds a new dimension to learning and so changes education in numerous ways (Bajpai, Hada & Bajpai, 2016). The content of libraries' resources has shifted from printed to online information

resources as a result of the information and communication technology (ICT) revolution (Israel & Edesire, 2016). As a result, library materials are no longer restricted to physical medium like books, magazines, or journals. Libraries are increasingly relying on electronic resources rather than traditional printed ones (Nnadozie & Nwosu, 2016; Okezie, 2016). This makes internet use a necessary condition for effective utilization of library resources. However, the use of electronic resources does not take the place of printed resources but facilitates it through access to large stock of Library materials (Okezie, 2016).

The role of the academic library is to support academic activities and improve teaching-learning initiatives in accordance with university objectives. According to Frumkin & Reese (2011), the library's role in gathering and sharing information resources is crucial. A university library's basic responsibilities include the gathering, organization, preservation, and transfer of information resources to users (Ramaiah, 1998). The role involves the capacity to recognize the different demands of library users in order to provide both teaching and non-teaching staff and students with access to information resources for learning, teaching, research, and career development. Essentially, the resources accessible to students determine their capacity to utilise information resources. This study looks on the availability, accessibility, and usage of information resources by students at the Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekiti.

In a multitude of fields, including education, the Internet has grown in popularity. As a result, throughout the previous two decades, school Internet access has risen considerably (Berson, 2000). This demonstrates that students, more than any other industry, rely on the Internet for their academic needs. In recent years, students have discovered the Internet to be an extremely useful and popular tool for both academic and non-academic uses, such as amusement and communication.

The Internet provides a collaborative environment for sharing as well as to see information on a wide, divergent and variety of subjects. Consequently, its use has become very popular among the student community which is used by them to complement their studies. The availability of the Internet and electronic resources may have a negative effect on the use of an institution's library by students, while socio-economic and demographic characteristics of students can also have a significant impact. It is possible that while some students go to the library to use the available services, others may not go to the library, perhaps due to the availability of alternatives like personal e-resources and Internet connection at their service. Franscotti, Levenseler, Weingarten & Wiegand (2007) are of the view that, libraries are trying to reinvent themselves to be more appealing to students. They are doing this by fostering literacy information through resources and services to encourage their clients to visit and use the library. In spite of this, studies have shown that attitude of students to the use of library and what characterized their use, reasons for using the library, and information need vary, and where there is low use, there are often pedagogic reasons for it.

The internet, according to Promise & Goodluck (2010), plays an important role in education, particularly when it comes to introducing technology into classroom activities. On the other hand, it may be the most successful method of increasing pupils' knowledge. The Internet has become an integral component of the library environment, dramatically improving library and information services. The internet is a search engine that should be utilized in conjunction with, not in substitute of, traditional library resources. No one can dispute that, as a result of the widespread availability of the internet, libraries have lost relevance in society. Despite the fact that some say that the internet has rendered public

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libraries obsolete, libraries continue to play a vital part in our societies (Promise & Goodluck, 2010).

The internet, according to Chinmay (2010), allows people to access a vast amount of information regardless of their location. When they can acquire the same information on the internet, they will not go to a local library to read books or other reading materials. As a result, using the internet to get knowledge may lead to the perception that going to the library is superfluous for internet users. The internet has enhanced technology, communication, and online entertainment, but it has also shown to be a highly successful educational tool. Teachers use the internet to supplement their lessons, and several prestigious universities have made their lectures and courses free to the public. Retired teachers in developing countries have been able to read to and educate youngsters as a result of this. Because of the widespread use of the internet, a vast amount of information is now available to a much bigger number of people than ever before. Any internet search offers a wealth of material that is easily accessible. As a result, the internet has overtaken libraries as a source of information and study. Many professors now require pupils to study from home by visiting a certain website, and online encyclopedias offer large volumes of material on virtually any subject. Instead of being limited to what their instructor sends home, having a variety of sources allows students to delve further into a subject.

Before users can make sense of the information resources available, e-libraries must process them. Because most of the information resources accessible in Nigerian university libraries are print materials, indexing, abstracting, cataloging, and bibliographical are all problematic. Users are unable to use information resources that have not been processed, according to library policy. The argument is that accessibility is a precondition for information consumption. The challenge of accessibility as a delivery of information resources is exacerbated by the integration of technology. Internet access has been added to the list of obstacles by the addition of digital databases and online resources. To handle the accessibility of digital materials, e-libraries will now require the expertise of digital curation professionals and data specialists. Libraries' failure to provide users (students) with the essential information capable of restoring their original level of assurance is worsened by their lack of knowledge, and e-libraries' failure to provide users with the essential information capable of restoring their original level of assurance is exacerbated by their lack of knowledge (Kulthau, 2004).

Every student can use the e-library to access and use information resources to develop analytically in accordance with classroom teachings in a self-passed capacity. If properly exploited by students, researchers, and instructors, the e-library and library information resources should be considered as a laboratory of knowledge, capable of bringing classroom learning to new heights. The academic library is essential to the teaching-learning process as well as students, researchers, and the entire university community, much as scientists cannot operate without a laboratory. Students require e-library and library information resources that may be applied realistically to their requirements and that will broaden their knowledge.

Internet resources are a relatively new technological invention, and they are among the most essential tools ever produced in human history, becoming increasingly vital to the academic world. With the introduction of the internet and library resources such as CD-ROMs (Compact Disc Read Only Memory), databases, OPACs (Online Public Access Catalogues), and other printed library materials, information may be saved in one location and made available to all users at the same time. With regard to Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekiti, it is worth noting that internet

and library resources are of considerable relevance to students' academic and research requirements since they are available in a variety of formats in libraries.

Students at Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekiti, on the other hand, are uninformed of and underuse the internet and library facilities available to them, resulting in poor academic accomplishment. Is it possible that they are uninformed of these resources' existence, and if so, why are they unable to make use of them? Furthermore, research has revealed that issues such as unawareness and capacities might hinder consumers' use of the internet and library materials. In this context, the goal of this research is to see how internet and library use affects students' academic performance at Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekiti.

### Research Questions

The following research questions were formulated to guide the study:

- i. What are the types of internet and e-library services used by students of Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekiti Science Department?
- ii. What are the impacts of internet and e-library usage on academic performance of the students?

### Literature Review

#### *Library Information Resources*

The libraries' information resources are used for a variety of purposes that are consistent with the university's founding goals. As a result, the school library aids the university in achieving higher education's goals and objectives in the development of an information-literate society. Because charity begins at home, the information literate society depicted here can be limited to students and universities. Print and non-print content are both included in the concept of information resources. Journal publications, monographs, textbooks, articles, dissertations, and papers are examples of print materials. The library's non-print information resources include audio-visual tapes, projectors, CDs, cassettes, internet electronic books (e-books), e-journals, online materials and online tools. The library's print material collection has been expanded to include encyclopedias, dictionaries, and periodicals. It is also the role of the university library to assist students, teachers, and users with innovative digital scholarship services (Vinopal & McCormick, 2013).

The development of information communication technology (ICT) in the scene of library services has ushered in a wave of innovations that has given library information resources a new dimension. Technology has given library services a digital twist, such as allowing the library's reference services to be carried out digitally via electronic methods (Ugah, 2008). The creation of the digital library i.e. electronic library (e-library) ensures that digital resources are available online and that information resources are available to meet user demand for digital information (Wu, Thompson, Vacek, Watkins & Weidner, 2016). As a result of this program, digital content has risen, with thousands of information resources now available online, contributing to the library's growing collection of information resources. Students now have comprehensive access to innovation that supports teaching-learning and research with appreciation to libraries providing statistical tools for data analysis, as well as training and other online support systems. University libraries' information resources such as BOUESTI E-Library are expanding and diversifying at an exponential rate, best summarized

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by Smith (2016) as retooling library information resources to support the innovation of reshaping library practices.

The library's goals may not be attainable unless its resources are utilized to their full potential by faculty and students who rely on its information resources for a variety of purposes. The importance of the library cannot be overstated, given that no student, no matter how clever, can afford to ignore it. This means that in order to receive proper educational training and conduct academic research, students will require library information resources. For students and researchers to be active in teaching, learning, and research, the information resources become a beacon of hope. With the library's expanding electronic and digital information resources, the significance of both print and non-print resources becomes indisputable. In addition to traditional print and non-print resources, libraries' information resources now include computer hard and software, online databases, internet access, e-books, and e-journals.

The university library has long been regarded as the beating heart of the academic community, offering vital services such as fostering an environment that encourages students, students, and the whole school community to pursue higher education aspirations. Teaching-learning, research, and other uses of library resources will be limited if the library's information resources are unavailable. The library is the "heart" of the university. On the other hand, measured university achievement using the library as a metric, as a result, in order for the library to be relevant to higher education goals, its information distribution duties must be carried out efficiently and on time (Olowu, 2004). The library is crucial to academic performance, according to both student-learners and faculty-teachers (Popoola & Haliso, 2009).

#### ***Availability of E-Library Resources***

The library's initiative in making information resources available and accessible benefits students, instructors, and researchers. The library fulfills this core role for higher education, as championed by institutions. The availability of information resources includes the library's print and non-print material resources. According to Nwosu (2005), textbooks, reference books, and serial publications are crucial print information-carrying resources for successful teaching-learning and research that must be reinforced in the classroom. The integration of information technology (IT) that facilitates communication via the internet to the traditional library resources makes information much more accessible. Libraries, on the other hand, must build the necessary capability to support the provision of digital and online information resources. Hence, libraries must be able to establish the availability of working ICT as information sources and various forms of publications as information resources in this way.

Libraries, according to Frumkin & Reese (2011), should make information resources such as books and ICT available at all times in both print and non-print media. By doing so, libraries may be able to fulfil both their basic obligation to users and their higher education goals. "The number and quality of a library's physical contents define its sufficiency," as the saying goes. The lack of library resources can be interpreted in a variety of ways, ranging from temporary to permanent. Due to a lack of variety, the library may be unable to satisfy the information needs of its patrons (Aguolu & Aguolu, 2002). To ensure that information resources are available, e-libraries must rely on a range of sources or platforms (books, non-books, print, non-print, and ICT), or they risk losing sight of their fundamental aims. Libraries are under pressure to discover new ways to spread information as a result of the emergence of digital and online resources. Libraries are developing, according to Smith

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(2016), and appropriate management generates long-term strategies capable of maintaining information resources available throughout periods of scarcity, leased out resources, outmoded content, or even delayed purchase to fulfill user needs. Librarians must retain strong money management skills and ensure that information resources are accessible to solve financial challenges arising from low funding and the rising cost of information resources, namely digital and online resources.

### ***Accessibility of E-Library Resources***

The availability of information resources when it comes to e-library resources does not always imply resource accessibility and consumption, according to various research (Lawal-Solarin, 2012; Nnadozie & Nnadozie, 2008). While availability is concerned with the actual location of materials in the library, accessibility is concerned with the storage, presentation, and timely transmission of information resources to users. The importance of having access to information resources is critical for library customers (Ugah, 2008). Without access to resources, utilization is impossible, and the resources' worth is irrelevant to users. The topic of access presents various obstacles to both library administration and users since making materials accessible necessitates a set of abilities that, if absent, render available resources available but inaccessible. The success or failure of e-library information resource accessibility is influenced by the quality of cataloging, shelving, and technical services. Olowu (2004) classified the impediments as either natural or artificial, in addition to the many forms of barriers to accessing existing information resources reported by (Ugah, 2008).

Before users can make sense of the information resources available, e-libraries must process them. Because most of the information resources accessible in Nigerian university libraries are print materials, indexing, abstracting, cataloging, and bibliographical are all problematic. Users are unable to use information resources that have not been processed, according to library policy. The argument is that accessibility is a precondition for information consumption. The challenge of accessibility as a delivery of information resources is exacerbated by the integration of technology. Internet access has been added to the list of obstacles by the addition of digital databases and online resources. To handle the accessibility of digital materials, e-libraries will now require the expertise of digital curation professionals and data specialists. Libraries' failure to provide users (students) with the essential information capable of restoring their original level of assurance is worsened by their lack of knowledge, and e-libraries' failure to provide users with the essential information capable of restoring their original level of assurance is exacerbated by their lack of knowledge (Kuhlthau, 2004).

### ***Utilization of E-Library Resources***

Before evaluating other elements in how students use the e-library's information resources, availability and accessibility must be guaranteed. This is based on the notion that because an e-library takes up space, its contents must be confined inside that space. According to Ross & Sennyey (2008), a major aspect of the library as a venue is self-evident. In actuality, the capacity of customers to find a physical facility known as a library that provides information resources supports the library's existence as a location. A library is a place where individuals go to consume knowledge only for that reason. Through the use of information resources pertinent to teaching-learning-support, the library is critical to students' academic performance and achievement. Every student can use the e-library to access and use information resources to develop analytically in accordance with classroom teachings in a self-passed capacity.

If properly exploited by students, researchers, and instructors, the e-library and library information resources should be considered as a laboratory of knowledge, capable of bringing classroom learning to new heights. The academic library is essential to the teaching-learning process as well as students, researchers, and the entire university community, much as scientists cannot operate without a laboratory. Students require e-library and library information resources that may be applied realistically to their requirements and that will broaden their knowledge.

### ***The Ideas of Internet***

The concept of "inter-networking," which relates to computer networking, inspired the name "internet." It's an umbrella under which a variety of small and large networks throughout the world freely share information. The Internet, according to Singh (2001), is a worldwide network of computers that interact using a common protocol (rules for exchange of information). It allows individuals and organizations all over the globe to access the most diversified source of information, which is stored on a large network of computers. The World Wide Web is made up of thousands of servers operated by a variety of organizations, corporate institutions, industrial units, academic institutions, other organisations, and individuals. Web pages served on numerous servers give a range of information in the form of text, pictures, and multimedia animation, among other things, either for free or for a small price.

The internet, like the postal system or the telephone system, is best understood as a genetic term, according to Information Technology Encyclopaedia online. The internet is simply a network of hundreds or thousands of computers all over the world connected in a way that allows other computers to access information on them. The internet provides access to a wide range of information resources and services, including interconnected hypertext documents, the World Wide Web (www), and e-mail infrastructure. The internet has become one of the most widely utilized information sources, allowing the average individual to stay up to date on current events. Users can no longer rely on traditional information sources to keep up with the newest developments in their fields. The World Wide Web is the most extensively utilized section of the internet (often abbreviated as www).

Adekomi & Oyewusi (2011) defined the internet as a collection of computers linked together and communicating via an appropriate transmission control protocol or internet protocol (TCP/IP), and the tools it employs include computer systems, optical fiber links, radio links, and a variety of other hardware.

The Internet is a worldwide network of hundreds of thousands of computers connected in such a way that information stored on them may be accessed by other computers. Also, a connection, like a letter or a phone call, may pass via several intermediaries, and that the connection's quality and speed are mostly determined by the efficiency of the local service. The core principle remains the same regardless of how they are joined. That is, computers in different locations communicate with one another, and it may also operate as an instant printing press since data can be sent from one user to another for printing (Cray, 2006).

The Internet is altering the library system as well as our perceptions of library materials and services. It includes links to a variety of library websites that specialize in practically every subject and may be viewed from anywhere in the globe. As libraries become more web-based, more and more of them are becoming available through their online pages. A student at any institution can use an internet connection to search for materials on computers in other libraries across the world. As a result, the Internet gives users quick

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access to billions of information sources, including books, reports, journals, video films, sound recordings, and a broad range of other media. In organizing information and bridging the information gap, librarians and information professionals play a critical role.

By designing clearly organized, easily accessible, and well published library web sites, librarians can extend traditional librarianship to the use of information technology and seize a leadership role in both fields; libraries can initiate Bulletin Board Service, which provides complete information about services, products, and various events organized by them; ready reference service can supplant the traditional reference service. Enhanced Small Disk Interface (E-SDI) services may be utilized to give users with information as well as access to various databases and the Online Public Access Catalogs (OPACs) of other libraries situated in remote places.

The internet has become an increasingly important instrument for assisting academic activities at Nigeria's postsecondary institutions throughout the years. The information and communication technology revolution is sweeping the globe, and it has even reached developing nations such as Nigeria. The number of people using the Internet and the World Wide Web to access and share information has skyrocketed. In today's setting, the Internet plays a significant role in the teaching, research, and learning processes at academic institutions. As a result, the emergence of the Internet foreshadowed the birth of a new type of information generation and distribution - the soft form. The main advantage of this new kind of information resources is the almost endless quantity of information resources that is widely available and accessible to hundreds of millions of people in various areas of the world at the same time (Kumar & Kaur 2006). According to Brunning, Schraw, Norby & Ronning (2004), the Internet is a powerful and effective instrument for accessing, retrieving, and spreading information, and it has a huge impact on students and scholars all over the world. The Internet can be accessed, and it is larger and more active than a reference resource. It also serves as a platform for scholarly exchange.

Academic, social, legal, political, economic, and geographical limits connected with conventional print media have been lifted by the Internet (Kumar & Kaur 2006). This emancipation has had a significant impact on the research ability and productivity of scholars. It has also benefited scholars who wish to stay on top of research and keep up with changes in their fields of study by accessing the Internet (Kumar & Kaur 2006).

According to Cloud (2011), Computers and the Internet, the most powerful communication resources, have become a part of our everyday lives and one of the most significant educational tools. Because the Internet facilitates the movement of information between diverse sites, it is an extremely strong information system. People of various ages and occupations, as well as students and academics conducting scientific study and preparing projects, prefer to utilize the Internet since it is the simplest, fastest, and most cost-effective means of obtaining vital information.

### Research Methodology

This study used a descriptive survey design as its research method. This research strategy is seen to be appropriate for this study since it allows the researcher to make broad generalizations about the whole population from which the data was obtained.

The area of the study was Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekiti, Ekiti State. The study covers the schools of the university namely school of science education and the school of pure and applied sciences.



The population of this study consisted of One Thousand Two Hundred and Seventeen Students (1,217) undergraduate students picked across all the departments from the three colleges within the university which comprises of different curriculum of studies.

The research included a sample size of 122 students, or 10% of the total population. To ensure that everyone in the sampling frame has an equal chance of being included in the sample research, a random sampling approach will be utilized. Saunders, Lewis, and Thornhill (2012) defended the sample size by stating that 10% is considered the minimum for a population of thousands.

A questionnaire titled "Influence of Availability, Utilization and Accessibility of E-Library Resources on Science Students' Performance (a case study of Bamidele Olumilua University of Education, Science & Technology, Ikere-Ekiti)" was used as the instrument for data collection. The questionnaire was formulated based on the two (2) research questions that were formulated to guide the study. Question 1 determined the types of internet and e-library resources used by students and Question 2 ascertained the impact of internet and e-library usage on academic performance of students. The instrument was subjected to reliability and validity mechanism.

All the selected samples of the science students at Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekiti, Ekiti State, were given the questionnaire. The researcher visited the students one-on-one in the various lecture halls during lectures and administered the questionnaire to them, giving them time to fill it out before it was collected. This was done in order to achieve a high return rate and to assist minimize losses.

In order to analyze the data, the study used descriptive statistics. The data was structured in a tabular format to provide raw scores, which were then transformed to frequency and simple percentages.

## Results And Discussion

**Research Question 1:** What are the types of internet and E-Library resources used by Students of E-Library and Information Science Department?

**Table 1: Types of Internet and E-Library Resources used by Students of E-Library and Information Science Department.**

| S/No | Types of E-Library and internet resources                    | SA   |       | A    |       | D    |       | SD   |       |
|------|--|------|-------|------|-------|------|-------|------|-------|
|      |  | Freq | %     | Freq | %     | Freq | %     | Freq | %     |
| 1    | Electronic books   | 80   | 69.56 | 20   | 17.39 | 10   | 8.89  | 5    | 4.34  |
| 2    | Online databases   | 70   | 60.36 | 19   | 16.52 | 15   | 13.1  | 11   | 9.56  |
| 3    | Academic Journals Database                                   | 65   | 56.52 | 25   | 21.73 | 21   | 18.26 | 4    | 3.47  |
| 4    | Search Engines   | 71   | 61.73 | 16   | 13.91 | 17   | 14.78 | 11   | 9.51  |
| 5    | Electronic Libraries   | 52   | 44.82 | 24   | 21.73 | 30   | 26.1  | 9    | 7.82  |
| 6    | Blogs/Forums   | 40   | 34.78 | 33   | 28.69 | 26   | 22.60 | 16   | 13.91 |
| 7    | Distance Learning  | 21   | 18.26 | 18   | 15.65 | 58   | 50.43 | 18   | 15.65 |
| 8    | Textbooks  | 91   | 79.39 | 20   | 17.39 | 5    | 11.34 | -    | -     |
| 9    | Reference Materials  | 89   | 77.39 | 23   | 20    | 3    | 2.60  | -    | -     |
| 10   | Serials publications such as magazines, newspapers, journals | 74   | 64.34 | 19   | 16.52 | 14   | 12.17 | 8    | 6.95  |

|    |                                    |    |       |    |       |    |       |    |      |
|----|------------------------------------|----|-------|----|-------|----|-------|----|------|
| 11 | Theses/ Dissertations and Projects | 65 | 56.52 | 22 | 19.13 | 18 | 15.65 | 10 | 8.69 |
|----|------------------------------------|----|-------|----|-------|----|-------|----|------|

Source: Field Work, 2022

Table1 above presents respondents responses on the types of internet and E-Library resources used by students of E-Library and Information Science Department. It reveals that 80 (69.56%) strongly agreed to electronic books, 20 (17.39%) agreed, 10 (8.89%) disagreed whereas 5 (4.34%) strongly disagreed. Also 70 (60.36%) strongly agreed to online databases, 19 (16.52%) agreed 15 (13.1%) disagreed while 11 (9.56%) strongly disagreed. Moreso, 65 (56.52%) strongly agreed to academic journals databases, 25 (21.73%) agreed, 21 (18.26%) disagreed while 4 (3.47%) strongly disagreed. Furthermore, 71 (61.73%) strongly agreed to search engines, 16 (13.91%) agreed, 17 (14.78%) disagreed and 11 (9.51%) strongly disagreed. In a similar vein, 52 respondents represented by (44.82%) strongly agreed to electronic libraries, 24 (21.91%) agreed, 30 (26.1%) disagreed while 9 (7.82%) strongly disagreed. 40 (34.78%) strongly agreed to blogs/forums, 33 (28.69%) agreed, 26 (22.60%) disagreed while 16 (13.91%) strongly disagreed. Also 21 (18.26%) strongly agreed distance learning, 18 (15.65%) agreed, 58 (50.43%) disagreed while 18 (15.65%) strongly disagreed. 91 respondents represented by (79.39%) strongly agreed to textbooks, 20 (17.39%) agreed while 5 (11.34%) disagreed. Again, 89 (77.39%) strongly agreed to reference materials, 23 (20%) agreed while 3 (2.60%) disagreed. Also, 74 (64.34%) strongly agreed to serials publications such as magazines, journals and newspapers, 19 (16.52%) agreed, 14 (12.17%) disagreed while 8 (6.95%) strongly disagreed. 65 (56.52%) strongly agreed to theses/dissertations and projects, 22 (19.13%) agreed, 18 (15.65%) disagreed while 10 (8.69%) strongly disagreed.

From the above analysis therefore, it can be deduced that the types of internet and E-Library resources utilized by students include all the items listed on the table such as electronic books, online databases, academic journals databases, search engines, electronic libraries, blogs/forums, textbooks, reference materials, serials publications as well as theses/dissertations and projects as indicated on their percentage scores except for distance learning which has a low percentage score.

**Research Question 2:** What are the Impacts of Internet and E-Library Usage on Academic Performance of the Students?

**Table 2: Impacts of Internet and E-Library Usage on Academic Performance of Students**

| S/No | Impacts of internet and E-Library resources and services   | SA   |       | A    |       | D    |      | SD   |      |
|------|--|------|-------|------|-------|------|------|------|------|
|      |  | Freq | %     | Freq | %     | Freq | %    | Freq | %    |
| 1    | Internet resources appeals to different senses of the body, thereby cater for individual differences in learning | 90   | 78.26 | 15   | 13.1  | 10   | 8.69 | -    | -    |
| 2    | It exposes the students to varied and multi sources of information   | 83   | 72.17 | 16   | 13.91 | 9    | 7.82 | 7    | 6.1  |
| 3    | It helps every student to learn and study at his own   | 79   | 68.69 | 22   | 19.13 | 8    | 6.95 | 6    | 5.21 |

|   |  |    |       |    |       |    |       |    |      |
|---|--|----|-------|----|-------|----|-------|----|------|
| 4 | space<br>It breaks the monotony of the teacher versus the students classroom lessons             | 69 | 60    | 19 | 16.52 | 17 | 14.78 | 10 | 8.69 |
| 5 | Internet's offers access to up-to-date information   | 93 | 80.86 | 14 | 12.52 | 8  | 6.95  | -  | -    |
| 6 | E-Library resources are selected by subject experts to reflect the information needs of students | 88 | 76.52 | 23 | 20    | 4  | 3.47  | -  | -    |
| 7 | E-Library resources are veritable material for research and documentation                        | 70 | 60.86 | 27 | 23.47 | 10 | 8.69  | -  | -    |
| 8 | E-Library resources serves as sources of materials for teaching and research                     | 69 | 60    | 21 | 18.26 | 20 | 17.39 | 5  | 4.34 |

Source: Fieldwork, 2022

Table 2 above shows respondent's responses on the impact of internet and E-Library resources on the academic performance of students. It reveals that 90 (78.26%) strongly agreed internet resources appeals to different senses of the body thereby caters for individual differences in learning, 15 (13.1%) agreed while 10 (8.69%) disagreed. 83 (72.17%) strongly agreed internet exposes the students to varied and multi sources of information, 22 (19.13%) disagreed, 9 (7.82%) disagreed while 7 (6.1%) strongly disagreed. Also, 79 (68.69%) strongly agreed it helps every student learn and study at his own space, 22 (19.13%) agreed, 8 (6.95%) disagreed while 6 (5.21%) strongly disagreed. Moreso, 69 (60%) strongly agreed it breaks the monotony of the teacher versus the students classroom lessons, 19 (16.52%) agreed, 17 (14.78%) disagreed while 10 (8.69%) strongly disagreed. 93 respondents represented by (80.86%) strongly agreed internet offers access to up-to-date information, 14 (12.52%) agreed while 8 (6.95%) disagreed. Furthermore, 88 (76.52%) strongly agreed E-Library resources are selected subject experts to reflect the information needs of students, 23 (20%) agreed while 4 (3.47%) disagreed. 70 (60.86%) strongly agreed E-Library resources are veritable materials for research and documentation, 27 (23.47%) agreed while 10 (8.69%) disagreed. Furthermore, 69 (60%) strongly agreed E-Library resources serves as sources of materials for teaching and research, 21 (18.26%), 20 (17.39%) disagreed while 5 (4.34%) strongly disagreed.

From the above analysis therefore, it can be deduced that the impact of internet and E-Library resources are numerous. This include; internet resources appeals to different senses of the body, thereby cater for individual differences in learning, it exposes students to varied and multi sources of information, it helps every student to learn and study at his own space, it breaks the monotony of the teacher versus the students classroom lessons as well as offers access to update information. On the other hand, E-Library resources are selected by subject experts to reflect information needs of students, E-Library resources are veritable materials for research and documentation and E-Library resources serves as sources of materials for teaching and research.

## Discussion

The discussion of the findings of this study is based on the research questions that were formulated to guide the study.

The study found the types of internet and E-Library resources utilized by students to include electronic books, online databases, academic journals databases, search engines, electronic libraries, blogs/forums, textbooks, reference materials, serials publications such as newspapers, magazines and journals as well as theses/dissertations and projects. The result of this study is congruent to the findings of Sahin, Balta & Ercan (2010) who in their study highlighted and discussed the types of internet and E-Library resources utilized by students to include; academic journal databases, search engines, electronic libraries, blog/forums, textbooks, reference materials as well as serials publications. The result of this study is also in harmony with the findings of Nnadozie (2014) who in his study asserted that despite the advent of internet and its numerous benefits to students, the use of traditional E-Library which carries physical books cannot be emphasized as not all information materials which are sought on the internet can be available or relevant. He therefore highlighted the E-Library resources available in libraries for students use to include; textbooks, reference materials, periodicals such as journals, magazines among others.

The study further revealed the impact of internet and E-Library use on students' academic performance to include; internet resources appeals to different senses of the body, thereby catering for individual differences in learning, it also exposes students to varied and multi sources of information, it helps every student to learn and study at his own space, it breaks the monotony of the teacher versus the students classroom lessons, offers access to update information, E-Library resources are selected by subject experts to reflect information needs of students, E-Library resources are veritable materials for research and documentation and E-Library resources serves as sources of materials for teaching and research. The result of the present is in agreement with the findings of Gupta & Sanocki (2002) in who in their study asserted that the internet and the E-Library is an inseparable part of today's educational system. The academic increasingly depends on the Internet for educational purposes. They observed that majority of academic and research institutions provide Internet service to students, teachers, and researchers because of its numerous benefits which they enumerated to include; internet resources appeals to different senses of the body, thereby catering for individual differences in learning, it also exposes students to varied and multi sources of information, it helps every student to learn and study at his own space, it breaks the monotony of the teacher versus the students classroom lessons, offers access to update information, E-Library resources are selected by subject experts to reflect information needs of students, E-Library resources are veritable materials for research and documentation and E-Library resources serves as sources of materials for teaching and research.

### **Conclusion**

The use of the E-Library and Internet in the educational environment has enabled easy access to many resources, and information sharing has, therefore, significantly increased. Moreover, the prevalence of this sharing has brought additional benefits in that these resources can be used in any location and any time.

The study found the types of internet and E-Library resources utilized by students of E-Library and Information Science to include electronic books, online databases, academic journals databases, search engines, electronic libraries, blogs/forums, textbooks, reference materials, serials publications such as newspapers, magazines and journals as well as theses/dissertations and projects. The study also revealed that the students are satisfied with some of the E-Library and internet resources provided by the E-Library which in turn has

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brought about improvement in their academic performance. It can be therefore be concluded that the University E-Library is not lagging behind in its provision of her services to students despite the challenges of poor internet connectivity making it difficult for students to maximize the full potentials of internet in the E-Library, epileptic power supply, lack of knowledge about the existence of online resources and services, inadequate computer systems in the virtual E-Library among others. The study therefore suggested that the university management should urgently improve the bandwidth for full internet connectivity, the E-Library management should make provision for a standby generator to complement PHCN, and the E-Library should carry out user education programmes to create awareness on the existence of the E-Library resources and services among others.

### Recommendations

Based on the findings of the study and conclusion thereof, the following recommendations are made:

1. The university management in collaboration with the E-Library should subscribe to more electronic resources which would encourage students' patronage or use in order to boast their academic performance.
2. The E-Library management should regularly carry out an awareness campaign about the existence of E-Library and internet resources and services to inform the students of the availability of E-Library and Internet resources.
3. Other problems militating against the factors militating against use of internet and E-Library resources and services should be adequately taking care of to enable students make judicious use of E-Library and internet resources and services.
4. The university management should make provision for a standby generator to serve as an alternative source power supply, internet bandwidth should be upgraded to enable students access internet connectivity anywhere on campus, training of students on computer skills to enable them access electronic resources and services, provision of more computers in the E-Library to enable all the students have access to computers, as well as regular maintenance of computers to avoid breakdown.

### References

- Adekomi, A.A. & Oyewusi, L.M. (2011). Prospects and Problems of Internet or Internet teaching and learning in Nigeria. *Journal of Media Educational Technology and Communication*, (22- 34).
- Aguolu, C. C., & Aguolu, I. E. (2002). Libraries and information management in Nigeria: seminal essays on themes and problems. Ed-Linform Services.
- Bajpai, R.P., Hada, K. S. & Bajpai, G. (2016). Academic Libraries and E-Learning: Initiative and Opportunities. *International Journal of Library & Information Science (IJLIS)*. 5(3), 159–165, Article ID: IJLIS\_05\_03\_015 Available online at <http://www.iaeme.com/IJLIS/issues.asp>.
- Berson, M. J. (2000). Effectiveness of computer technology in the social studies: A review of the literature. *Journal of Research on Computing in Education*, 2 (4), 486-499.
- Chinmay, S. (2010). Case study: Library usage at an Indian medical college. *Health Information and Libraries Journal* 28(1): 77-81.
- Cloud, C. C. (2011). *Network Ethics: Access, Consent and Informed Community*. USA: Westview Press.
-



- Cray, D. (2006). The Internet in lifelong learning liberation or alienation? *International Journal of Lifelong Education* 18, 119.
- Frascotti, J., Levenseler, J., Weingarten, C., & Wiegand, K. (2007). *Improving library use and information literacy at Caritas Charles Vath College*. An interdisciplinary qualifying project report submitted to the Faculty of Worcester Polytechnic Institute. B.Sc. Thesis. KAL, 0704; IQP division: 51. Available: <http://www.wpi.edu/Pubs/Eproject/Available/E-project-030107-103835>
- Frumkin, J., & Reese, T. (2011). Provision recognition: Increasing awareness of the library's value in delivering electronic information resources. *Journal of Library Administration*, 51(7-8), 810-819.
- Israel, O. & Edesiriu, O. (2017). Undergraduates' Computer Skills and the Use of Online Information Resources: A Case Study of Library and Information Science Students of Delta State University, Nigeria. *International Journal of Academic Library and Information Science*. 4(3), 87-93. ISSN: 2360-7858. <http://www.academicresearchjournals.org/IJALIS/Index.htm>.
- Kuhlthau, C. C. (2004). *Seeking meaning: A process approach to library and information services*. Libraries Unltd Incorporated.
- Kumar, .R. & Kaur .A. (2006). Internet Use by Teachers and Students in Engineering Colleges of Punjab, Haryana, and Himachal Pradesh States of India: An Analysis. *Electronic Journal of Academic and Special Librarianship*. (7) 1.
- Lawal-Solarin, E. O. (2012). A survey of library and information services to physically-challenged students in academic libraries in Ogun state, Nigeria.
- Nnadozie, C. O., & Nnadozie, C. D. (2008). The information needs of faculty members in a Nigerian private university: A self-study.
- Nnadozie, C.O. & Nwosu C. C. (2016). Analysis of Final Year Students' Satisfaction with Information Resources and Services in Four Nigerian Federal University Libraries. *International Journal of Advanced Library and Information Science*. Cloud Publications. 4 (1), 333-345, Article ID Sci-385. ISSN 2348-5167. <http://scientific.cloudjournals.com/index.php/IJALIS/article/view/Sci-385>.
- Nwosu, A. A. (2005). Teacher characteristics preferred by students': Implication for professional development practices. Proceeding of 46th Annual Conference of STAN, 35-39.
- Okezie, C. A., (2016). Types of Library and Information Science Publications Available in Selected Academic Libraries in Nigeria. *Journal of Library and Information Sciences*. 4(1), 63-72. ISSN 2374-2372. Published by American Research Institute for Policy Development. URL: <https://doi.org/10.15640/jlis.v4n1a5>.
- Olowu, K. (2004). Access to information: Myths and reality. *Nigerian Libraries*, 38(1), 48-55
- Popoola, S. O., & Haliso, Y. (2009). Use of library information resources and services as predictor of the teaching effectiveness of social scientists in Nigerian universities. *African Journal of Library, Archives and Information Science*, 19(1), 65-78.
- Promise, I & Goodluck, I. (2010) Impact of the Internet on Final Year Students' Research: A Case Study of Covenant University, Ota, Nigeria. *Library Philosophy and Practice* (e-journal) p. 403.
- Quadri R. F. (2011). Challenges and Prospects Of Using Internet Facilities in Federal College of Education (Technical) Library Omoku, Rivers State. Proceedings of the 1st International Technology, Education and Environment Conference
- Ramaiah, C. K. (1998). Multimedia systems in libraries and their applications. *DESIDOC Journal of Library & Information Technology*, 18(6).
-

- Ross, L., & Sennyey, P. (2008). The library is dead, long live the library! The practice of academic librarianship and the digital revolution. *The Journal of Academic Librarianship*, 34(2), 145-152.
- Singh, N (2001). Internet: Importance and Usage for Library and Information Professionals. *DESIDOC Bulletin of Information Technology*, 21(3), 17-28.
- Smith, B. J. (2016). Broadening Our Scope: International Collaboration for Retooling the Academic Library. *Journal of Library Administration*, 56(4), 395-415.
- Ugah, A. D. (2008). Availability and accessibility of information sources and the Use of library services at Michael Okpara University of Agriculture
- Vinopal, J., & McCormick, M. (2013). Supporting digital scholarship in research libraries: Scalability and sustainability. *Journal of Library Administration*, 53(1), 27-42.
- Wu, A., Thompson, S., Vacek, R., Watkins, S., & Weidner, A. (2016). Hitting the Road Towards a Greater Digital Destination: Evaluating and Testing DAMS at University of Houston Libraries. *Information Technology and Libraries (Online)*, 35(2), 5-8.