

**EXPLORING ELECTRONIC RESOURCES' UTILIZATION AMONG STUDENTS OF
INSTITUTE OF INFORMATION AND COMMUNICATION TECHNOLOGY (IICT),
KWARA STATE POLYTECHNIC, ILORIN**

By

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CERTIFICATION

This is to certify that this project titled *“Exploring Electronic Resources’ Utilization Among Students of Institute of Information and Communication Technology (IICT), Kwara State Polytechnic, Ilorin”* by Ajanaku Tope Asmau meet the regulations guiding the award in National Diploma in Kwara State Polytechnic Ilorin and is approved.

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DEDICATION

This project is dedicated to God for being my ultimate source of strength and inspiration. In Him, I derived all powers needed to live, weather the storms and become an embodiment of hope to myself and the people around me.

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All praise is to God, the most beneficent, the most merciful. My sincere appreciation goes to my parents for their concern, prayers and words of encouragements towards the completion of this programme. My utmost gratitude also goes to my supervisors Mr. Taiwo, M. A. for her moral and intellectual guidance and contribution towards the possibility of this project and all other lectures of the department.

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TABLE OF CONTENTS

TITLE PAGE	ii
CERTIFICATION	ii
DEDICATION	ii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS	v
ABSTRACT.....	vii
CHAPTER ONE	1
1.1 Background of the Study	1
1.2 Statement of the Problem.....	4
1.3 Research Question	4
1.4 Research Objectives.....	5
1.6 Significance of the Study	5
1.6 Scope of the Study	6
1.7 Operational Definition of Terms	6
CHAPTER TWO	8
REVIEW OF RELATED LITERATURE	8
2.1 Introduction.....	8
2.2 Concept of Electronic Resources	9
2.3 Usage of Electronic Resources	15
2.4 Types of Electronic Resources used by the students	17
2.5 Purposes of Using Electronic Resources	18
2.6 Benefits Derived from the Use of Electronic Resources	19
2.7 Most Used Electronic Resources	20
2.8 Frequency in the Usage of Electronic Resources	21
2.9 Rating of Skills in the Use of Electronic Resources	23
2.10 Problem Faced in the Use of Electronic Resources	24
2.10 Appraisal of Reviewed Literature.....	26
CHAPTER THREE	28
RESEARCH METHODOLOGY.....	28
3.1 Research Design.....	28
3.2 Population of the Study.....	29
3.3 Sample and Sampling Techniques	29
3.4 Instruments of Data Collection	30

3.5	Procedure for Administration of Instruments	30
3.6	Validity and Reliability of the Instrument.....	30
3.7	Data Analysis Procedure	30
CHAPTER FOUR.....		31
DATA ANALYSIS AND PRESENTATION.....		31
4.1	Presentation of Results.....	31
4.2	Analysis of Data and Discussion of Findings	32
CHAPTER FIVE		41
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION		41
5.1	Summary of Findings.....	41
5.2	Conclusion	41
5.3	Recommendations.....	42
REFERENCES		45
Appendix.....		48

Abstract

This research explores electronic resources utilization among students of the Institute of Information and Communication Technology (IICT), Kwara State Polytechnic, Ilorin. This study came up with four objective and research questions which were used to identify the types, most used electronic, purpose and benefits derived from the use of electronic resources, and the problems associated with the utilization of electronic resources among students of IICT, Kwara State Polytechnic, Ilorin. In this study, a descriptive survey design was adopted. The population of respondents was 2,250, while 329 was the study's sample size. A questionnaire was used as an instrument for data collection. Data collected was analyzed using frequency count and percentage. At the end of the study, it was revealed that students often used E-resources for research purposes and to get access to various kinds of information. It concluded by pointing out a series of problems associated with the use of electronic resources and a series of solutions were also recommended to the identified problems which can in turn make the usage of E-resources for learning by all academic students globally a preferred and chosen option for timely information.

CHAPTER ONE

1.1 Background to the Study

In the 21st century, Information Technology (IT) has brought rapid changes in education. Conventional teaching and learning are gradually moving online. Researchers and students of higher institutions are interested in having easy access to have easy access to full-text publications online and reference linking in a complex information space (Kaur & Vanna 2019). The emergence and use of information technology is the century's most significant development affecting scholarly communication. The application of electronic resources such as computers to process information has brought great products and services to the scene.

Advances in computer applications during the past few decades have brought radical changes in the way information is gathered, stored, organized, accessed, retrieved, and consumed. Kuma and Kuma (2018) pinpoint that the application of computers in information processing has brought several products and services to the scene. Electronic resources are one of the emerging environments in the field of learning. E-resources usually consist of E-books, E-journals, E-database, CD-ROMS, etc. which are likely to be alternatives to the print media. Electronic resources can be seen as the most recent development in information technology and also among the most powerful tools ever invented in human history (Dadzie, 2017).

Electronic information resources are becoming more and more important for the academic community (Kuma & Kuma, 2008). The academic community has undergone tremendous changes during these years, for instance, a new dimension influenced by technology-driven applications. Thus, libraries have witnessed a great metamorphosis in recent years in their collection and service structure. They are also using technology to improve the management of scholarly information not held locally. (Ibegwam, 2019) observed that the internet has become an

important component of the electronic service in academic institutions and has Permeated all aspects of life, breaking down barriers to communication and information access worldwide. The provision and use of electronic information resources have been moving towards an electronic environment in which sufficient computers are necessary for patrons to access information. The usefulness of electronic information resources to both scholars and students has been variously reported by Kaur & Vanna (2009).

The current level of electronic resources uses skills by the academic students in awareness and confidence in the use of electronic resources. Electronic resources also known as E-resources are used electronically and are on different subjects. Electronic resources can be bibliographic or full-text database that allows you to search for relevant articles in your subject area. E-resources include electronic journals, online databases, websites, CD-ROM, Electronic text (Agora & Jester), electronic books, locally loaded databases, etc. Electronic resources are regarded as the heart of information that is preserved through modern Information Communication Technology (ICT) devices refined and redesigned and more often stored in cyberspace in the most compact form and can be accessed simultaneously from infinite points by a great number of audiences. Students of higher institutions are expected to use electronic resources to enhance their studies (Buselle, 2020).

Generally, one usually finds out that students are more socially inclined with friends through using social media, reading dailies, and rarely getting information on their academic works except when necessary. This seems to have reduced interest in reading information resources, vocabulary development, general knowledge, and more.

1.1.2 Brief History of the Institute of Information and Communication Technology at Kwara State Polytechnic, Ilorin

The institute was carved out of the Institute of applied and Basic Science (IBAS) by the academic board in the 2012/2013 academic session. Three departments that looked homogeneous were clustered out of the IBAS these are departments of computer science, mass communication, and office technology and management. IICT took off as a full-fledged institute in the 2013/2014 academic session. Dr. Lanre Akewusola was the pioneer director of the institute.

Since its establishment, the institute has been leveraging information and communication technology to develop software and deliver solutions to some of the daunting challenges of Kwara State Polytechnic. The institute was involved in the local contents of the computer-based testing (CBT) for pre-admission screening exercises for prospective students as well as the promotion of non-academic staff of the polytechnic. The institute pioneered online result processing for Kwara State Polytechnic. Dr. A.K. Raji led a team of experts (backed with funded research by TETFund) to deliver software that enables Kwara State Polytechnic to experience a speedy consideration of results. IICT has a symbiotic relationship with the MIS of the polytechnic, in a synergetic manner, it provides the essential expertise and knowledge to enable efficiency on the deliverables of the unit such as transcript generation system, e-certificate processing, printing of statements, etc. The institute has a mandate project as the image of Kwara State Polytechnic in the global space through its Campus Echoes newspaper and KwaraPloy Radio.

Presently, the institute has been expanded with the establishment of the Department of Library and Information Science, which was accredited by the National Board for Technical

Education (NBTE) during the 2022/2023 session to mount the National Diploma (ND) program, under the current director which is Dr. A.K. Raji. All programmes in the institute have been accredited by the NBTE.

1.2 Statement of the Problem

Access to electronic resources brings great opportunities to obtain accurate and timely literature. It was observed that there is low usage of electronic resources in some higher institutions. In recent years, institutions have faced challenges such as power outages, delays in downloading, financial problems, inadequate skills, and poor internet connectivity in the utilization of electronic resources.

Given the foregoing, this study, therefore, investigates the utilization of electronic resources among the students, of the Institute of Information and Communication Technology (IICT), Kwara State Polytechnic, Ilorin.

1.3 Objectives of the Study

The general objective of this study is to investigate the Utilization of Electronic Resources for Learning among Students of the Institute of Information and Communication Technology (IICT), Kwara State Polytechnic, Ilorin.

The specific or other objectives are to:

1. identify the electronic resources utilized by the students of IICT, Kwara State Polytechnic, Ilorin.
2. determine the extent of utilization of electronic resources among students of IICT, Kwara State Polytechnic. Ilorin.

3. identify the purpose of utilizing electronic resources among students of IICT, Kwara State Polytechnic. Ilorin.
4. investigate the challenges faced in utilizing electronic resources by students of IICT, Kwara State Polytechnic, Ilorin.

1.4 Research Questions

The research questions of the study are as follows:

1. What are the electronic resources utilized by the students of IICT, Kwara State Polytechnic, Ilorin?
2. To what is the extent of utilization of electronic resources among students of IICT, Kwara State Polytechnic Ilorin?
3. What is the purpose of utilizing electronic resources among students of IICT, Kwara State Polytechnic Ilorin?
4. What are the challenges faced in utilizing electronic resources by students of IICT, Kwara State Polytechnic, Ilorin?

1.5 Significance of the Study

The report of the study shall be useful not only to the students but also to the staff in selecting some specific electronic resources that will be germane to their research and academic activities on or outside the campus. It shall identify the variables in the use of electronic resources by the students of the Institute of Information and Communication Technology.

The report shall reveal the level of the utilization of electronic resources by students. It will give the school management and students useful knowledge that can be helpful in the subscription and onward renewal of licenses to electronic resources without the school resources being wasted.

The report will also add to the existing empirical and cumulative literature on electronic resources in tertiary institutions in Nigeria.

1.6 Scope and Limitation of the Study

This study focuses on the utilization of electronic resources by Polytechnic students but is limited to the Institute of Information and Communication Technology, Kwara State Polytechnic and the respondents for this study are the higher national diploma (HND) students of the Institute. The study aims to find out the utilization of electronic resources among the students. Because of the timeframe and other factors, the researcher will ensure that the research does not in any way go beyond the scope of this study, to ensure reliable and effective research work.

1.7 Operational Definition of Terms

Electronics: This is a device that controls and directs a small electric current, they use electricity and electrical components to perform tasks like TVs, Computers, Telephones, and other gadgets that are used to aid learning among students.

Resources: This is something that can be used to help achieve an aim, these are information-bearing materials that are available to support learning, teaching, and research. These resources can be printed or non-printed.

Electronic Resources: Electronic resources also known as E-resources are information resources in electronic format that can be accessed through computers, tablets, smartphones, and book-readers.

Utilization: Is a systematic process for the use of learning resources to aid in the learning process of students in tertiary institutions.

Learning: the act of acquiring knowledge or skills through study, it involves adding new information with the use of electronic resources to aid learning among students in the Institute of

Information and Communication Technology at Kwara State Polytechnic Ilorin.

CHAPTER TWO

REVIEW OF RELATED LITERATURE.

2.1 Introduction

Computers and related electronic resources have come to play a central role in education. Most of the students have considerable experience with the internet and will, whether they like it or not, make use of it for much of their academic work. However, it is not just students who find electronic resources useful or valuable. Teachers can as well benefit from these resources, by employing a series of useful tools. Users of electronic resources in higher institutions endorse it because electronic tools can make classes more efficient, lectures more compelling, and informative, various reading assessments more extensive, interesting, and accessible; discussions more free-ranging and challenging; and students' papers more original and well researched.

2.2 Concept of Electronic Resources

2.3 Usage of Electronic Resources

2.4 Types of Electronic Resources used by the students

2.5 Purposes of Using Electronic Resources

2.6 Benefits Derived from the Use of Electronic Resources

2.7 Most Used Electronic Resources

2.8 Frequency in the Usage of Electronic Resources

2.9 Rating of Skills in the Use of Electronic Resources

2.10 Problem Faced in the Use of Electronic Resources

2.2 Concept of Electronic Resources

Adeniran (2013) noted that electronic information resources can be seen as the most powerful tools ever invented in human history. In a similar view, Ikoja-Odongo (2019) stated that the emergence of electronic information resources has tremendously transformed information handling and management in academic environments and universities. Electronic resources can be a bibliographic or full-text database that allows you to search for relevant articles in your, subject area. Electronic resources are invaluable research materials that complement the print (Deng, 2010).

According to Buselle, (2020) advances in computer applications during the past few decades have brought radical changes in the way information is gathered, stored, organized, accessed, retrieved, and consumed. Electronic resources consist of materials that require the use of a peripheral e.g. a CD ROM player attached to a computer. Electronic resources are becoming very important these days as they are more up-to-date, and can be accessed anywhere, crossing all geographical boundaries. Such resources add value while conducting R&D activities. These resources play a vital role in disseminating knowledge with a certain aim.

- **CD ROM:** This is a pre-pressed optical compact disc that contains data. The name is an acronym that stands for "Compact Disc Read-Only Memory". Computers can read CD-ROMs, but cannot write on the CD-ROMs which are not writable or erasable. Until the mid-2000s, CD-ROMs were popularly used to distribute software for computers and video game consoles. Some CDs, called enhanced CDs, hold both computer data and audio with the latter capable of being played on a CD player, while data (such as software or digital video) is only usable on a computer (such as ISO 9660 format PC CD-ROMs).

- **Electronic Books:** Libraries now provide access to a variety of electronic books, as well as other printed works (such as essays, poems, or historical documents). Some of these electronic books and texts are part of large, searchable databases.
- **Electronic Journals:** Most academic libraries now have an offline e-journal database to help you find journal materials that are useful to users and an online version of e-journals which the library subscribes to have access to current journal publications.
- **Online Database:** This is a web-based filing system designed to store information. It is a database accessible from a network, including from the Internet. Most academic libraries now subscribe to online databases of books and journals that are relevant to the University curriculum which will help to facilitate teaching and learning in the University environment.
- **Online Sources:** Online sources are materials that are available online. It can be an online newspaper, magazine, or television website such as NBC or CNN. Peer-reviewed journals, web pages, forums, and blogs are also online sources. Some other names for online sources are 'electronic' sources, 'web' sources, and 'internet' sources. These are very useful electronic information resources that many libraries are now making available to satisfy the urgent needs of their user community.
- **Electronic encyclopedia:** The availability of enormous storage space in the CD-ROM coupled with sophisticated search software witnessed the appearance of several encyclopedias on CD-ROM. Later, web versions of these encyclopedias became available as important reference tools on the web. Web versions of several important encyclopedias are available over the Internet. A few examples are given: Encyclopedia Britannica, Columbia Encyclopedia, Encarta Encyclopedia Important Encyclopedia

- **Electronic Conferences:** Technological developments on the Internet in the early 1990s created an environment that was suitable for holding an electronic conference. In 1994, the electronic means for meetings were all in place. The World Wide Web provided a robust environment for presenting scientific information. The web permits a document to contain text, figures, and links to other materials. In November 1994, the first Electronic Computational Chemistry Conference (ECCC-1) was held. Electronic Conferences, variably known as electronic forums, electronic user groups, list servers, and discussion groups are important resources for researchers and scholars in every discipline. New scholars in particular get an opportunity to discover what topics are being discussed in their field, to learn who is involved in these discussions, and to make them known within their discipline by their contributions.
- **Electronic thesis and dissertation:** Theses submitted to the universities as a requirement for the award of PhD degree constitute a useful source of information for new and ongoing research. A thesis contains records of an original contribution to knowledge. Although a large number of doctoral theses are submitted to every university each year, they are not being used to their fullest potential because most libraries keep them in closed-access collections. Doctoral theses submitted to universities and academic institutions are created in digital format using word processing software packages like MS Word, LaTeX, Word Perfect, Word Pro, etc. These documents are undisputedly highly valuable collections, especially in digital format that qualify to be an important component of a digital library. Several universities and institutions have already implemented electronic submission of doctoral dissertations under the overall umbrella of an international digital library initiative called “Networked Digital Library of Theses and

Dissertations (NDLTD)". Some of the important sites for electronic theses and dissertations are Networked Digital Library of Theses and Dissertations, Academic Dissertation Publishers Theses and Dissertations UMI Digital Dissertations.

2.2.1 Advantages of Electronic Resources

Easy Access: Accessing e-resources is easier for the users. They can access the desired material within minutes, or even seconds, on their desktops, provided equipment is available. Large collections of material can be searched and retrieved simultaneously and instantly. There is an active dissemination of information by alerting the readers at their desktops about the new electronic resources that are accepted into the database. In other words, e-resources allow intelligent full-text retrieval based on past use and interests.

Speed: High speed and efficiency benefit the publishing and distributing electronically. Authoring and publishing systems can be integrated easily with computer-readable text. Also, electronic transmission, especially in the review process, saves valuable time.

Linkages: Linkages can be enabled by hypertext and hypermedia formats among sections within an electronic resource. E-mail contacts would be easier among users, publishers, and suppliers. Users have more creative ways to have their information queries answered.

Costs: The e-resources are published electronically rather than in paper and no new costs are introduced. Multimedia Innovative ways of presenting research results can be supported by electronic page layout. Interactive three-dimensional models, motion video, and sound are a few possibilities. Commenting on the advantages of electronic resources. Dadzie (2007) writes that electronic resources are invaluable research tools that complement print-based resources in a traditional library setting.

Their advantages include:

Access to information that might be restricted to the user due to geographical location or finances.

Access to more current information Provision of extensive links to additional resources related content. This rapid emergence and development of electronic information technologies therefore makes it possible to envision radically different ways of organizing the collections and services the library has traditionally provided. While the libraries approach a crisis point in financing collection development, these new technologies offer possible ways to mitigate costs and revolutionize ways to access information. Navjyoti (2017) also finds that speedy publication and availability on the desktop are the key advantages that attract research scholars.

2.2.2 Disadvantages of Electronic Resources

Financial Constraints: The infrastructure required to display, store, or print electronic resources is expensive. Downloading and printing will be a costly affair. This means a net increase in economic and ecological costs and it becomes a relatively expensive way to acquire a single copy.

Social Constraints: Electronic interfaces can take a long time to master. Electronic searching, downloading, and printing replace the traditional activities of physically browsing, scanning, and photocopying. The intricate steps to accomplish the previously simple or habitual tasks might frustrate users. People read up to 25 to 30 percent more slowly on a computer screen than on paper.

Technological Constraints: The academic community can be divided into ‘haves’ and ‘haves - not’ because of access to equipment and networks. The network or connection speed can be too slow. The screen quality of graphics and photos is still primitive when compared to print.

2.2.3 Need for Evaluation of Electronic Resources

A library selects documents for its collection after careful evaluation and adds them to its collection in their proper context. The process of selective acquisition adds value to information resources available in a library that, in turn, helps library users to harvest the information that they need. Electronic resources cannot be treated differently from those in printed media because most of the resources do not go through the process of filtration prevalent in the printed world. The web is merely a new medium that acts as an effective system for delivering electronic information. Librarians have been traditionally selecting, evaluating, describing, and providing intelligent information resources for decades; they are, therefore, best suited to do this job (Navjyoti, 2017).

The need for evaluation of Internet-based electronic resources can be justified on the following grounds:

- Authenticity of information published on the web needs to be established;
- The author of published information may not be an authority or an expert in the area;
- The information on the Internet may be outdated;
- Reliability of information on the network may not have been established;
- The information needs to be presented to a given audience. The librarian needs to establish its relevance for the targeted audience.

2.3 Usage of Electronic Resources

The electronic resources have provided many possibilities and opportunities in providing faster and quicker access to information. Electronic resources like e-journals, e-books, and e-mails help in tutorials including digital repositories. Jagboro (2013) reported the emerging reliance and attitude of users to electronic resources in a study, she concluded that in some Nigerian universities, it was revealed that 45.2% of respondents accessed electronic resources from cyber cafes. This attitude according to her is due to the proximity of cybercafés to users.

Gakibayo, (2011) carried out a study on electronic resources usage by students and staff at Ubarara University of Science and Technology and the results indicated low usage. Ojo & Akande (2015) in a survey of 350 respondents examined student's usage of electronic resources in UCH ' Ibadan. The study found that the usage of electronic resources is not high. Omotayo (2010) noted that databases and e-journals are used by academics for both teaching and research among other users. Academics have indicated satisfaction with their use of electronic resources and have committed themselves to the continuous use of these resources because it leads to better research and enhances scholarly communication.

Michael, (2014) in a study of electronic reading in college courses concluded that student's usage of electronic resources is quite high, the study shows that they looked for the fastest way that will lead to satisfactory results when doing research, going for electronic information source first. Cambridge English Dictionary (2017) therefore defines 'utilization' to mean the act of using something effectively with the sole purpose of achieving a certain objective. Therefore, the utilization of electronic library resources is not only a choice but inevitable in the era of information technology.

(Dar et al. 2017 in Yebowaah & Plockey, 2017). Libraries are gradually establishing resource sharing to reduce costs and meet the requirements of user demands. This establishes a direct link between libraries and information services with a joint influence on knowledge discovery and dissemination in the digital era. The use of information technology has created advanced contributions in the information technology field which has improved the services of libraries significantly. Besides, the application of ICT as stated by Zimmermann (1951) “Resources Are Not; They Become” which suggests that the recognition or awareness of the presence of resources without their utilization is meaningless. In this regard, the concept of utilization of electronic libraries provides opportunities for users to access and utilize both online resources and other services effectively (Prakash, 2017 in Yebowaah & Plockey, 2017).

Bhukuvhani et al (2012) study revealed that 86.7% of the respondents indicated that they used at least one or more electronic information resources to find information for use for their teaching and/or research. Only 13.3% of lecturers indicated non-usage of electronic information sources, of the lecturers who participated in this study, 66.67% indicated that they had attended the EIRST workshops provided by the University library while 33.33% did not attend. A study by Yebowaah and Plockey (2017) on Awareness and Use of Electronic Resources in University Libraries in the University for Development Studies Library revealed the frequency of e-resource utilization in the library. It was found that only 2 respondents representing 7.7% use resources of the library every week while 4 respondents representing 15.4% of the sample use it twice every week. It was also discovered that 11 respondents representing 42.3% use the resources once in every month while 9 respondents representing 34.6% use the facilities once a while. The categories of users that use it once a while are not regular users of the e-resources in the library facility. The foregoing discussion implies that many of the lecturers are aware of the e-resources

facilities in the library. However, some (67.5%) of them are still not users of the e-resource facilities. This suggests that some factors may be influencing use of the e-resources in the UDS Library

2.4 Types of Electronic Resources

Thanuskodi (2012) noted that E-Resources are the electronic representation of information. They are available in various forms like E-books, E-Journals, E-mail, Online databases, CDROM, and E-Magazine. Because of the effective presentation with multimedia tools, those E-resources have become the source of information. He further agreed that electronic resources deliver the collection of information as full-text databases e.g. E-Journals, CD-ROM, etc. According to Tsakonas, (2016), electronic resources are provided in electronic form and this includes resources available on the internet such as E-books, E-Journals, Email, Online databases, CDROMs, and other computer-based electronics.

Furthermore, Adeniran (2013) also reported a survey where some E-resources collections in Redeemers' University Library were mentioned, such resources include, Online databases, CD-ROM, OPAC (Online Public Access Catalogue), and E-Journals. Sukula (2010) submitted that various types of electronic resources used in higher institutions are; E-Books, E-Journals, E-Newspaper, OPAC, etc. Adeniran (2013) in a follow-up conducted a survey where some E-resources collections in Redeemers' University were mentioned such resources include; Online databases, CD-ROM, OPAC, and E-Journals. Ray & Day (2010) stated that E-resources are available in numerous forms. He gave examples such as E-journals, E-mail, E-conferences, Online databases, OPAC, and lots more.

2.5 Purposes of Using Electronic Resources

There has been an exceptional growth in electronic resources, E-resources can be used for many purposes (Tyer, Michael & Waterman 2014) stressed that electronic resources can contain current information because they can be updated frequently. They noted that they offer advanced search results and it allows access to information since the beginning of the 21st century. Okello-Obura & Magara (.2008) state that the purpose of E-resources is the facilitation of access to international information resources via the Internet, as well as the timely dissemination of both local and international research output. This is because researchers still need information mainly for reviewing their existing knowledge on given topics and for keeping themselves abreast of new developments. Information according to them is also needed for solving topical problems and for brainstorming ideas for new research. Most studies across the world have suggested that the use of electronic resources could enhance and enhance the efficiency, effectiveness, and quality of education, learning, and the research process.

Ayoo and Lugaba (2014) and Reoux (2014) opined that E-resources in Institutions and academic resources assist learning, teaching, and research activities at Colleges and Universities. Several electronic resources initiatives have been put in place to assist in the development training and use of electronic resources in several 'academic institutions, Egberongbe (2011).

According to Deng (2010), B-resources are used for different purposes. He revealed that most students agreed that E-resources improve their reading habits," some said it makes their reading more enjoyable and helps in expanding their reading possibilities.

2.6 Benefits Derived from the Use of Electronic Resources

Ray and Day (2010) in their study find out that 83% of students surveyed felt that using this source saved time and found it relatively easy to use. Two words of those surveyed stated that if the CD-ROM was busy, they would wait for it to become free rather than use the print tool. Ash (2010) opined that some documents are more useful in electronic form due to enhanced search ability e.g. allowing the statistical calculation to be affected. Benson (2010) confirmed that another benefit of electronic journals is their availability for readers. In the library, patrons can view journals when the library is not Open, if they have access to a network terminal. E-resources also provide access to literally thousands of magazines and newspapers. According to Ellis & Oldman (2015), E-Journals relatively provide efficient access to information and thus, they are easier to distribute to library patrons than traditional print. In the financially stringent environment of the higher education system, electronic journals have become a medium that is cheaper than traditional printed journals.

Ali (2015) found out that 83% of students surveyed felt that using these E-Resources saved them time and found it relatively easy to use. In the context of developing countries, Okelle-Obura and Magara (2018) investigated electronic information access and utilization at the East Africans' School of Library and Information Science: Makerere University Uganda. Out of the 250 targeted students, 190 responded, giving a response rate of 76%. The study revealed that users derived a lot of benefit from electronic resources gaining access to a wider range of information and improved academic performance as a result of access to quality information. Deng (2010), in a follow-up study, concluded that students derive lots of benefits from the use of E-resources. Accessing the students' responses, most of the students said it saves their time and allows them quick access to information.

Ashikuzzaman (2018) electronic resources excel in furnishing information of current value and interest to the user community. Today resources are considered as the most important components in the information communication process. A strong electronic resources base satisfies the requirements of a maximum number of users. Electronic resources offer several benefits not only to libraries but also to student researchers and archivists. Electronic resources help in low cost of production compared to print documents; the cost of publication and distribution is less than print versions. Electronic resources save enormous time by providing easy and instantaneous access without wasting time or processing, printing, binding, and delivery. Electronic resources eliminate printing, binding, and postage costs. Electronic resources also allow interactive facilities. Electronic resources facilitate easy duplication into new media and distribution. It facilitates easy access to physically challenged persons. Electronic resources save library storage space. It also helps in the provision of hyperlinks to related additional resources. Electronic resources have the potential to conserve fragile/precious original materials. It helps and allows remote access from anywhere at any time. Electronic resources enable simultaneous access to a large number of users. It facilitates or provides current awareness service to all users; faculty, research scholars and postgraduate students. Generally, and conclusively, electronic resources play a vital role in disseminating with a certain aim.

2.7 Most Used Electronic Resources

Daramola (2016) in his project report opined that the electronic resources frequently used were electronic journals, electronic books, and e-magazines. Some of the electronic resources are mostly used by students. According to Tsakonas, (2006), electronic resources mostly used include electronic journals, online databases, and CD-ROM databases. Ayoo (2004) on a framework of electronic resources sharing opined that students used E-mail, E-book and OPAC

mostly. Afolabi (2007) further stated that students like using online databases and E-mail more than other E-resources.

Thanuskodi (2012), on the use of E-resources by the students and researchers of the Faculty of Arts Annamalar University, concluded that students in the faculty use E-journals, internet search engines, and electronic dictionaries mostly. Adedeji (2012) reviewed that students in Osun State Vocational Secondary School used CD-ROM mostly and said that it allows them to access relevant databases without robust internet connectivity.

A study conducted by Oni et al (2016) on Awareness and utilization of electronic resources by students of Benson Idahosa University Benin City, Edo State, Nigeria revealed that electronic learning resources commonly consulted by students include electronic books, electronic journals, electronic magazines, and Wikipedia. Suniti (2016) on the usage of electronic resources and their impact on reading culture by students of Punjab Agricultural University, Ludhiana, revealed that most used electronic resources include electronic books, electronic journals, electronic thesis, CeRA (Consortium for e-Resources in Agriculture), Krishiprabha, business source elite, distant, com and commodities database.

Feynman et al (2014) revealed the use of electronic resources by undergraduate students in Two universities selected in Niger-Delta State, Nigeria that the most commonly used electronic resources by the students of the two selected universities include HINARI, electronic journals, CD ROMs, AGORA, and EBSCOhost.

2.8 Frequency in the Usage of Electronic Resources

A survey carried out by Stephen & Oludare (2010), revealed that students utilize electronic resources very often, another study carried out by Anna (2013) shows that students use electronic

resources one to five times a week and some use them less than once a month. Pauline (2013) opined that students use these resources regularly while some use them occasionally. Feynman (2014) on a follow up concluded that students used E-resources daily and monthly. Thanuskodi (2012) on the use of E-resources stated that most students use electronic resources weekly and monthly. Ali (2005) researched the use of E-resources and opined that less than half of students use electronic resources twice a month while most of the students use E-resources daily. Feynman et al (2016) on the extent of the use of electronic resources by undergraduate students revealed that students use electronic resources very regularly.

Bawa et al (2018) on awareness and utilization of electronic learning resources by students of Tamale Technical University revealed that all the students interviewed used the resources throughout the week implying that students used the resources for various purposes at various times.

Toyo (2017) on the perception and use of electronic resources by students of the school of Nursing, Agbor, Delta State Nigeria, revealed that students of nursing school make use of electronic resources daily. Jaspal (2011) on the use of electronic resources in Degree College libraries in Chandigarh opined that the majority of the students never used electronic resources. According to Lucky & Joy (2016) on levels of electronic information resources usage among undergraduate students in Taraba State University library, Jalingo, Taraba State, revealed that 70% of the students often make use of electronic resources in the school while 20% very often use electronic information resources because of their low level of skillfulness in the use of ICT among respondents. While the other 10% rarely used it because of the same problem.

2.9 Rating of Skills in the Use of Electronic Resources

Ray & Day (2008) carried out a study on the rate of skills in the use of electronic by students. The study reveals that a large number of students leave universities without the necessary skills to cope with an information-based society. Electronic information resources offer today's students new opportunities that were not available to the previous generation. Liew (2020) argues that reading an electronic journal is not the same as reading a printed issue. Many students now acknowledge that electronic documents offer users advanced features and novel forms of functionality; beyond those possible in printed form. As argued by Swain & Panda (2019), library users' attitudes to information are gradually shifting from printed documents to electronic resources. Singh, (2019) argued that ICT has brought a tremendous change in boundaries and structural skills in information

According to Luck and Joy (2016) the levels of electronic resource usage among undergraduate students in Taraba State University Library, Jalingo Taraba State, revealed that the level of skillfulness in the use of ICT among the respondents is low. Damilola (2013) on the use of E-resources by distance students in Nigerian the study revealed that 17.87% of the students are extremely low in terms of skills in the use of electronic resources, while 76.59% are excellently skillful in the use of E-resources. Toyo (2017) Perception and usage of electronic resources by students in the school of Nursing, Agbor, Delta State Nigeria. The study disclosed to us that the number of the respondents that have average knowledge of IT/Computer literacy is higher with 49 (55.0%). It was followed by those who have very high knowledge of electronic resources IT/Computer literacy respondents representing 11.2% had average knowledge of the use of electronic resources. Jaspal's (2011) use of electronic resources in Degree College libraries in Chandigarh revealed that the majority of the students i.e. 612(79.48%) knew electronic resources

skills while 158(20.52%) indicated that they did not know about the operation or skills of electronic resources.

2.10 Problem Faced in the Use of Electronic Resources

There are many problems faced in the use of E-resources among such problems as highlighted by Chisenga (2014) cited in Egberongbe (2011) listed some challenges that hinder the use of E-resources in Nigeria institutions, some of the factors are; lack of strategic planning, inadequate reliable Funds, lack of use of the internet to provide information services to users and a lack of consisted training for users in new ICT services. Odewale and Akpati (2013) stated some of the constraints in using electronic resources, including the insufficient number of terminals available for use despite high demand and inadequate electricity supply among others. Other problems identified by Egberongbe (2011) are the lack of information retrieval skills of usage of electronic resources by students and those who had the skills are rated to be low.

Isah (2010) found that slow internet access and lack of constant power supply were the major factors Inhibiting the use of electronic resources. In the same vein, Damilola (2013) observed that poor electricity supply greatly hindered the use of electronic information resources. This was revealed by his study which indicated that poor internet connectivity was a hindrance that greatly affected the use of electronic information resources. Other factors were insufficient skills, financial problems, poor training programs, and excessive academic workload on students. Ojo and Akande (2015) in their survey of 350 respondents of students' access and use of electronic resources at the University College Hospital. (UCH) Ibadan, Nigeria, the study revealed that the level of usage of electronic resources was very low. The problem was however attributed to a lack of information retrieval skills for exploiting electronic resources; thus, making the level of usage of electronic resources by medical students somehow low.

Suniti (2016) usage of electronic resources and their impact on reading culture by students of Punjab Agricultural University, Ludhiana. The study revealed that the students faced the problem of inadequate technical skills to use electronic resources inadequate internet facilities and poor power supply. According to Kojo (2018) in his study on awareness and utilization of electronic resources by students of Tamale Technical University, Ghana. The study revealed that students are facing the challenges of lack of ICT knowledge, insufficient ICT facilities, slow internet/poor network, unskilled ICT librarians, and difficulties in reading from the screen. Feynman & et al (2014) use of electronic resources by undergraduates in two selected universities in Delta region Nigeria. The study revealed the impediments to the effective usage of electronic resources available in the institutions such as slow internet connectivity, insufficient access time, poor power supply, poor infrastructure, restricted access to databases, high cost of printing and access time, lack of ICT skills and knowledge, inappropriate search terms. Lucky and Joy (2016) in their study on levels of electronic resource usage among undergraduate students in Taraba State University Library, Jalingo, Taraba state. The study revealed the problems encountered which are information overload, the need to filter the results from a search, download delay, problems with the credibility of information, lack of search skills, high cost of access, power outages, inaccessibility of some websites and difficulties in navigation of some websites. All these give a serious setback to the effective use of electronic information resources.

According to Yebowaah and Plockey (2017), some factors were identified as challenges associated with the use of e-resources in the library. From the results, 42 respondents representing 52.5% of the sample population indicated that they always have problems with the password. Low internet speed as a challenge has been encountered by 31 respondents representing 38.8% of the study. Other challenges such as inadequate staff in the library and lack

of assistance from the librarians were mentioned by 10 respondents each representing 12.5%. About 9 respondents denoting 11.3% said inadequate computers in the library were a barrier to their effective usage of the library. Five (5) representing 6.3% indicated that there was no or low bandwidth while the remaining 2 respondents amounting to 2.5% maintain that the attitude of staff in the library was also a challenge.

Kaur (2016) opines that electronic resources can be good substitutes for conventional resources if access speed is fast and more computer terminals are installed to provide access to electronic resources. With the introduction of mobile handsets, it is much easier to access the internet. Even though forty-four percent of Nigerian university libraries have Internet connectivity, some of the system development units in these libraries are like commercial cybercafés. They do not subscribe to electronic journals; such as emerald journals (Jagboro, 2013). (Jagboro, 2013). It is one thing to have an Internet connection in the libraries and it is another thing to subscribe to these quality journal publications. In the Niger Delta University, students get access to electronic resources free of charge in the main library and faculty libraries (Law, College of Health Sciences and Engineering) but pay for the cost of printing. Internet facilities are also accessible to students.

2.11 Appraisal of Reviewed Literature

The literature reviewed based on the foregoing discussion revealed that electronic resource is often used by students. A survey carried out by Stephen & Oludare (2010), revealed that students utilize electronic resources very often, another study carried out by Anna (2013) shows that students use electronic resources one to five times a week and some use them less than once a month. Pauline (2013) opined that students use these resources regularly while some use them occasionally. Feynman (2014) on a follow up concluded that students used E-resources daily and

monthly. It was observed during the review of the literature that electric resources are used by the students as it allows them to have access to wide information material using search engines like Google give access to a database that provides them with relevant information for their course of study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This section or chapter is a prologue to the entire section in chapter three. It helps to provide an outline of the subsequent subsections that show how the chapter is organized.

The subsections contained in this chapter are:

- 3.1 Research Design
- 3.2 Population of the Study
- 3.3 Sample and Sampling Method
- 3.4 Instrument of Data Collection
- 3.5 Procedure for Administration of Instruments
- 3.6 Validity and Reliability of the Instruments
- 3.7 Data Analysis Procedure

3.1 Research Design

The study will adopt the descriptive survey design. The choice of descriptive survey design for this study is based on the fact that the study is educational research and intends to seek the opinions of respondents. Therefore, this intends to know the opinion of HND students of the Institute of IICT, Kwara State Polytechnic. The population is large and the subject being studied is not an observable issue.

3.2 Population of the Study

The population of the study is the entire full-time Higher National Diploma (HND) students of the Institute of Information and Communication Technology, Kwara State Polytechnic. The estimated or target population for this study is students of three departments in the Institute Mass Communication, Computer Science, and Office Technology Management department. Therefore, the targeted population for this study comprises the total number of all the available HND students of the aforementioned department.

3.2.1 Distribution of Population

S/N	Departments in IICT	No full-time students
1	Mass communication	1100
2.	Computer science	950
3.	Office technology management	200
	Total	2,250

Source: Research Survey, 2025

3.3 Sample Size and Sampling Method

A simple random sampling method will be used to select the sample method. This type of sampling guarantees every member of the population an equal chance of being chosen, to the extent that the choice of any one number does not in any way affect that of another. Sample in research refers to a group of selected population from which necessary data for its conduct would be obtained. The sample size for this study is

$$N = 2250 / 1 + 2250(0.0025)$$

$$N = 2250 / 1 + 5.14$$

$N = 2250/6.14$

$N = 328.85 \sim 329$ (sample size)

The sample for the study will be 329 respondents.

3.4 Instruments for Data Collection

The instrument for data collection for this study will be a questionnaire. The questionnaire will be in two sections. Section A is on the Bio-Data of the respondents while section B is on the research questions raised for the study.

It aims to answer questions on the usage of electronic resources, benefits derived from the use of electronic resources, challenges faced from using electronic resources, and the purpose for which electronic resources are being used by the students of the Institute of Information and Communication Technology, Kwara State Polytechnic.

3.5 Method of Data Collection.

The questionnaire was distributed to the respondents at each department. The researcher employed the service of research assistants to administer the 329 questionnaires one-by-one to the students and their responses to the questionnaires were collected immediately. The researcher was able to retrieve 300 questionnaires.

3.6 Validity and Reliability of the Instruments

The questionnaire was given to the project supervisor for vetting for the necessary corrections and to other lecturers in the department. Concerning the reliability, it was ascertained that the respondents understood the content of the questionnaire.

3.7 Method of Data Analysis

Data analysis involves the process of treating data with a statistical tool so that mass data can be summarized, simplified, and interpreted (Wimmer R.D and Dominick J.K 2018). The method

that will be adopted in this analysis and interpretation of data obtained from questionnaires distributed is simple frequent counts and percentages in the table. Information and data gathered will be analyzed and addressed to the research questions proposed for the study.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

This chapter is aimed at analyzing in a tabular form, data collected through the questionnaire that the researcher administered in the course of searching for information which will assist the researcher in explaining the findings of the research work. A total of 100 copies of questionnaires were distributed and all were recovered.

The recovered data were represented in the table below and discussed appropriately.

4.2. Table 1: sex distribution of the respondents

SEX	FREQUENCY	PERCENTAGE (%)
MALE	120	40%
FEMALE	180	60%
TOTAL	300	100%

Source: Field survey, 2025

The table above shows that the total number of male respondents 120 (40%) higher than the total number of female respondents 180 (60%).

4.3. Table 2: Institute of respondents

STATEMENT	FREQUENCY	PERCENTAGE (%)
MASS COM	130	43.3%
COMPUTER SCIENCE	100	33.3%
OTM	70	23.3%
TOTAL	300	100%

Source: Field survey, 2025

The above table reveals that the total number of respondents from the Department of Mass Com is 130 (43.3%), the total number of respondents from the Department of Computer Science is 100 (33.3%) and the total number of respondents from the Department of OTM is 70(23.3%). This shows that the Department of Mass Com carries the larger number of respondents and questionnaires were distributed.

4.4. Table 3: Level of respondents

STATEMENT	FREQUENCY	PERCENTAGE (%)
Higher Nation Diploma (HND I)	180	60%
Higher Nation Diploma (HND II)	120	40%
TOTAL	300	100%

Source: Field survey, 2025

The table above shows that the total number of respondents from HND I is 180 (60%) while the total number of respondents from HND II is 120 (40%). This table reveals that the total number of respondents from HND II is higher than the number of respondents from HND I.

4.5. Table 4: The use of electronic resources

STATEMENT	FREQUENCY	PERCENTAGE (%)
YES	180	60%
NO	120	40%
TOTAL	300	100%

Source: Field survey, 2025

The above table tries to reveal if the students make use of electronic resources. It shows that 180 (60%) of the respondents make use of electronic resources. While 120 (40%) of the respondents

do not make use of electronic resources. The implication of this is that the students of computer science, mass communication, and office technology management who make use of electronic information resources are higher than the students who do not make use of electronic resources.

4.6. Table 5: The type of electronic resources the students make use of.

STATEMENT	SA+A N (%)	UD N (%)	SDA+DA N (%)	TOTAL
E. Books	85(85%)	2(2%)	13(13%)	100%
E. Journals	83(83%)	2(2%)	15(15%)	100%
E. Newspapers	75(75%)	1(1%)	24(24%)	100%
E. Conferences	51(51%)	0(0%)	49(49%)	100%
E. Mail	62(62%)	1(1%)	37(37%)	100%
Online Database	50(50%)	3(3%)	47(47%)	100%
OPAC	50(50%)	1(1%)	49(49%)	100%
CD-ROM	52(52%)	1(1%)	47(47%)	100%
E. Magazines	30(30%)	5(5%)	65(65%)	100%
E. Dictionaries	60(60%)	3(3%)	37(37%)	100%

Source: Field survey, 2025

The table above shows that the highest response from the respondents on the type of electronic information resources is E-books 85(85%) followed by E-journals 83(83%) then followed by E-conferences 75(75%) followed by E-mails 62(62%) while the strongest disagreement is E-magazines 65(65%) concluded not used by students for learning. These variables imply that E-books 85(85%) are the most used electronic resources by the students for learning while, E-magazine 65(65%) is the electronic resources not used by students for learning.

4.7. Table 6: Purpose of using E-resources

STATEMENTS	SA+A N (%)	UD N (%)	SDA+DA N (%)	TOTAL
For research purpose	81 (81%)	0 (0%)	19 (19%)	100 (100%)
For communication	43 (43%)	1 (1%)	56 (56%)	100 (100%)
For information	70 (70%)	1 (1%)	29 (29%)	100 (100%)
To read newspapers	30 (30%)	2 (2%)	78 (78%)	100 (100%)
To do assignment	85 (85%)	0 (0%)	15 (15%)	100 (100%)

Source: Field survey, 2025

Table 6 above shows that the highest response from the respondents is to do assignment 85 (85%) followed by research purpose 81 (81%), then for information 70 (70%). 43 (43%) respondents agreed that communication while, reading a newspaper takes 30 (30%). The strongest disagreement is the reading of newspapers. The implication of this is that to do assignment 85 (85%) is the highest as agreed by the respondents and the strongest disagreed s to reading newspaper 78 (78%).

4.8. Table 7: the factors that motivate your use of electronic resources.

STATEMENT	SA+A N (%)	UD N (%)	SD+D N (%)	TOTAL
It saves time	69(69%)	1(1%)	30(30%)	100%
Less expensive	79(79%)	1(1%)	20(20%)	100%
It makes learning easier	96(96%)	0(0%)	4(4%)	100%
Access to wider range	87(87%)	1(1%)	12(12%)	100%

of information				
Quick access to information	88(88%)	0(0%)	12(12%)	100%

Source: Field survey, 2025

The above table shows that the highest response of students on what motivates them to use electronic resources is that it makes learning easier 96(96%) followed by it gives quick access to information 8(88%) then access to access to wide range of information takes place after with 87(87%), 79(79%) respondents believed that electronic resources motivate them because it is less expensive and 69(69%) respondents strongly agreed that E-resources saves their time while the strongest disagreed is it saves the time of the user 30(30%). This result implies that E-resources makes learning easier takes the highest percentage 96(96%) while it saves the time of the user that has the strongest disagreement with 30(30%) respondents.

4.9. Table 8: The use of electronic resources.

STATEMENT	SA+A N (%)	UD N (%)	SD+D N (%)	TOTAL N (%)
Daily	59(59%)	2(2%)	39(39%)	100%
Twice a week	25(25%)	2(2%)	73(73%)	100%
Weekly	40(40%)	2(2%)	58(58%)	100%
Twice a month	40(40%)	1(1%)	59(59%)	100%
Monthly	30(30%)	2(2%)	68(68%)	100%
Occasionally	60(60%)	1(1%)	39(39%)	100%

The above table reveals that the highest strongly agreed on the use of electronic resources

occasionally 60(60%) disagreed 39(39%) were undecided (1%) respondents followed by 59(59%) disagreed 39(39%) respondents undecided by 2(2%). 40(40%) respondents agreed that they make use of E-resources weekly, while 58(58%) disagreed. 40(40%) agreed that they make use of E-resources twice in a month, 59(59%) disagreed, 1(1%) undecided. 25(25%) agreed they use E-resources twice a week, 73(73%) disagreed, 2(2%) undecideds. The implication is that the highest time agreed on the use of E-resources is occasionally 60(60%) while the highest time disagreed is twice a week 73(73%).

4.10. Table 9: Skills in the use of electronic resources

STATEMENTS	SA+A N (%)	UD N (%)	SDA+D N (%)	TOTAL
Excellently	75 (75%)	1 (1%)	24 (24%)	100 (100%)
High	60 (%)	2 (%)	38 (%)	100 (100%)
Average	64 (64%)	1 (1%)	35 (3%)	100 (100%)
Low	35 (35%)	0 (0%)	65 (65%)	100 (100%)
Extremely low	19 (19%)	3 (3%)	78 (78%)	100 (100%)

Source: Field survey, 2025

The above table revealed that 75 (75%) of the respondents agreed that they use electronic resources excellently while 24 (24%) respondents disagreed and undecided 1 (1%) respondent. 60 (60%) respondents agreed on high, 38 (38%) disagreed and 2 (2%) undecided. 64 (64%) respondents rated their skills to be average, disagreed by 35 (35%) and undecided by 1 (1%). 35 (35%) respondents rated their skills low while 65 (65%) disagreed. 19 (19%) respondents agreed they are extremely low in skills of using electronic resources, 48 (78%) disagreed, and 3 (3%) were undecided.

4.11. Table 10: Problems associated with the use of electronic resources

STATEMENTS	SA+A N (%)	UD N (%)	SDA+D N (%)	TOTAL
Irregular power supply	82 (82%)	1 (1%)	17(17%)	100 (100%)
Problem of credibility of information	60 (60%)	2 (2%)	38 (38%)	100 (100%)
Inadequate ICT skills	40 (40%)	1 (1%)	59 (59%)	100 (100%)
Limited access to computer terminal	66 (66%)	2 (2%)	32 (32%)	10(100%)
Information from e-resources is not organized	77 (77%)	0 (0%)	23 (23%)	100 (100%)
The server/system is not fast enough	82 (82%)	0 (0%)	18 (18%)	100 (100%)
Downloading and printing of information is expensive.	96 (96%)	0 (0%)	4 (4%)	100 (100%)

Source: Field survey, 2025

The above table shows that the highest response from the respondents on the problems associated with the use of electronic resources is downloading and printing of information is too expensive 96 (96%), followed by irregular power supply 82 (82%) and then followed by the problem of server/system compliance 82 (82%). Information from e-resources is not organized 77 (77%). The implication of this is that downloading and printing of information which is considered too expensive by the respondents 96 (96%) is the major problem associated with the use of electronic resources.

4.12. Table 11: Strategies of improving the academic use of electronic resources.

STATEMENTS	SA+A N (%)	UD N (%)	SDA+D N (%)	TOTAL
More education on the use of e-resources	85 (85%)	0 (0%)	15(15%)	100 (100%)
Competent personnel providing the services	81 (81%)	1(1%)	18 (18%)	100 (100%)
Cost of access to service should be affordable	80 (80%)	0 (0%)	20 (20%)	100 (100%)
Provision of more computers	90 (90%)	0 (0%)	10 (10%)	100 (100%)
Availability of internet connectivity	99 (99%)	0 (0%)	1 (1%)	100 (100%)
Constant power supply	99 (99%)	0 (0%)	1 (1%)	100 (100%)
Access to computer terminal	79 (79%)	0 (0%)	21 (21%)	100 (100%)
Reduction of cost of downloading and printing	95 (95%)	0 (0%)	5 (5%)	100 (100%)
Provision of relevant information resources easily	98 (98%)	0 (0%)	2 (2%)	100 (100%)

Source: Field survey, 2025

The above table revealed that the highest response from the respondents on the strategies on improving the academic use of e-resources is constant power supply 99 (99%), followed by the same number of responses on availability of internet connectivity 99 (99%), followed by provision of relevant information more easily 98 (98%). Reduction of cost of downloading and

printing followed 95(95%), provision of more computers 99 (99%) followed, more education on the use of electronic resources followed 85 (85%), followed by competent personnel providing the services 80 (80%) then, access to computer terminal 79 (79%) followed. The implication of this is that availability of internet connectivity and constant power supply 99 (99%) are the major strategies that need to be considered and implemented to improve the academic use of electronic resources by students. While, access to computer terminal 79 (79%) is considered the minor strategies to the improvement.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter is concerned with the summary of findings of this research work, accompanied with conclusions and proffer possible solution to the Utilization of electronic resources for learning among students of IICT, Kwara State Polytechnic, Ilorin.

5.2 Summary of Findings

Electronic resources consist of e-books, e-journals, e-database, and C D-ROMS e.t.c which are likely to be alternative to the print media. Electronic resources can be seen as the most recent development in information technology and also among powerful tools ever invented in human history. Advance in computer applications during the past few decades have brought radical changes in the way information is gathered, stored, organized, accessed, retrieved, and consumed.

This study is on the use of electronic resources for learning by students, the types of electronic resources that are available and the most used electronic resources by students, the rating skills of students in the use of electronic resources, frequency of the use of electronic resources, the purpose and the benefits derived from the use of electronic resources, the problems associated with the use of electronic resources such as irregular power supply, insufficient types of electronic resources, limited access to computer terminal, etc. The perceived solution to the identified problems which are recommended for timely, accurately and effective use of electronic resources for learning by students.

5.3 Conclusion

It has been observed by the researcher that electronic resources have come to play a vital role in

the area of learning by student of higher institutions in the pursuit of their academic activities and excellence. However, from the findings and the knowledge gathered during the study of the selected Institute ignites the research into identifying some impediments or problems. The following conclusion has been derived.

There is limited access to computer terminal by the students which creates great weakness or setback to the accessibility, retrieval and consumption of necessary information by the students, thus, students are unable to meet with their immediate information needs as required.

The problem of downloading and printing of information which is considered too expensive for the students to afford impede the pursuance of their academic activities and excellence. This problem is also an impediment to information consumption.

Irregular power supply for the day-to-day smooth running of the ICT operations in the schools. Insufficient electronic resources types to cater for the individual numerous and dynamic needs of the students in accordance to their academic activities which has caused great delay in accessing information at desired period of time.

The server/system that are being used are not fast enough in searching for desired information and which could bring about reducing the effective use of the information needs of the students at appropriate time. There is also a problem of credibility of information that suit the best and immediate needs of the students for perfect and credible academic work.

5.4 Recommendations

Electronic resources have come to play a central role in education. Most of the students have considerable experience with the internet and will, whether you like it or not, make use of it for much of their academic works. Hence, the following recommendations in accordance to the above conclusion are proffered;

1. The access to the available computer terminal by the students should be provided so as to enable the students to access, retrieve and consume the expected and necessary information needed of them to tackle with their academic activities. Unlimited access to the computer terminal by the students encourages sufficient information consumption.
2. The management should ensure they kindly reduce the cost of downloading and printing information needs of the students. The affordability of downloading and printing of information is very essential so as to enable the students to get for themselves sufficient but accurate and adequate information.
3. The availability and regular supply of power or electricity is very essential so as to enhance frequent and smooth operation of the electronic computers. The management should also provide standby generator to support the power supply. The availability and regular power supply is very paramount in the provision of timely and accurate information to the students.
4. The management should ensure that the necessary types of electronic resources needed in accordance to the academic activities offering in the schools are available to the students, so as to trigger the students to wanting to establish their information searching using the appropriate and expected types of electronic resources instead of managing the just available ones.
5. The management of the schools should ensure the server/system is placed or located where the convergence of the computer and the network required would never be disengaged. Slow server or network causes retardation to accessing and downloading information and which is a great impediment to information consumption.
6. The information made available should be able to meet with the total requirement, the

credibility of information brings about the credibility of awareness and solution to the problem or queries at hand. Incomplete or inadequate information is a chaos and it is a misleading agency which impede perfection to academic work or activities.

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APPENDIX
QUESTIONNAIRE

Department of Library and Information Science
Institute of Information and Communication Technology
Kwara State Polytechnic, Ilorin Nigeria

Dear respondent,

I am an ND II student of the department of Library and Information Science, Kwara State Polytechnic, Ilorin. This questionnaire was designed to get information on the” *Exploring Electronic Resources’ utilization among Students of Institute of Information and Communication Technology*”. You are kindly requested to assist in carrying out this survey by faithfully answering the questionnaire to the best of your knowledge. All information supplied will be strictly for academic/research purpose with utmost confidentiality; your anonymity is highly assured.

Please tick [√] the option that is appropriate to your response.

SECTION A: BIO DATA OF RESPONDENT

Gender

Male []

Female []

Department

Mass communication []

Computer science []

Office technology management []

Level

Higher National Diploma I (HND I) []

Higher National Diploma II (HND II) []

SECTION B

Pease tick [√] the options that are appropriate to your answer using:

Stronly Agree (SA), Agree (A), Undecided (U), Disagree (D), Strongly Disagree (SD)

Do you use electronic resources?

Yes []

No []

What type of electronic resources do you use?

S/N	ITEMS	SA	A	U	D	SD
1.	Electronic Books					
2.	Electronic Journals					
3.	Electronic Newspapers					
4.	Electronic Conference					
5.	E. mail					
6.	Online Database					
7.	Online Public Access Catalogue (OPAC)					
8.	CD ROM					
9.	Electronic Magazines					
10.	Electronic Dictionaries					

Others, please specify _____

For what purpose do you use electronic information resources?

S/N	ITEMS	SA	A	U		SD
1.	For research purpose					
2.	For communication					
3.	For information					
4.	To read newspaper					
5.	To do assignment					

Others, please specify _____

What are the factors that motivate your use of electronic information resources?

S/N	ITEMS	SA	A	U	D	SD
1.	It saves time					
2.	It is less expensive					
3.	It makes learning easier					
4.	Access to wide range of information					
5.	Quick access to information					

Others, please specify _____

How frequent/often do you use electronic resources?

S/N	ITEMS	SA	A	U	D	SD
1.	Daily					
2.	Twice in a week					
3.	Weekly					
4.	Twice in a month					
5.	Monthly					
6.	Occasionally					

Others, please specify _____

How will you rate your skills in the use of electronic resources?

S/N	ITEMS	SA	A	U	D	SD
1.	Excellent					
2.	High					
3.	Average					
4.	Low					
5.	Extremely low					

Others, please specify _____

What are the problems associated with the use of electronic resources for learning by students?

S/N	ITEMS	SA	A	U	D	SD
1.	Irregular power supply					
2.	Problems of credibility of information					
3.	Inadequate ICT skills					
4.	Limited access to computer					
5.	Information from electronic resource are not organized					
6.	The server/system is not fast enough in searching for information					
7.	Downloading and printing of information is too expensive					

Others, please specify _____

What are the strategies for improving the academic use of electronic resources by students?

S/N	ITEMS	SA	A	U	D	SD
1.	Providing constant power supply					
2.	More computer should be provided for student use					
3.	Availability of internet connectivity in the polytechnic					
4.	Providing access to computer terminals					
5.	Providing relevant information more easily					
6.	Students should be given more					

	education on the use of electronic resources for academic work					
7.	The cost of access of the services should be made affordable					
8.	Personnel providing the services should be competent					

Others, please specify_____