

**THE ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGY
(ICT) ON SERVICE DELIVERY IN JOHN HARRIS LIBRARY,
UNIVERSITY OF BENIN**

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NOVEMBER, 2023

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**BEING A RESEARCH PRESENTED TO THE DEPARTMENT OF
EDUCATIONAL MANAGEMENT, FACULTY OF EDUCATION. UNIVERSITY
OF BENIN, BENIN CITY, IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS OF THE AWARD OF BACHELORS DEGREE IN LIBRARY
AND INFORMATION SCIENCE (B.LIS).**

NOVEMBER, 2023.

CERTIFICATION

We, the undersign hereby certify that this research work was carried out by **Comfort Osakieduwa SOLOMON** with the matriculation number **EDU1803985** of the Department of Educational Management, University of Benin, Benin city, Edo state, Nigeria. In partial fulfilment of the requirements for the award of Bachelors Degree in Library and Information science (B.LIS).

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DEDICATION

This project is dedicated to God Almighty, who has provided me with enabling grace throughout this program.

ACKNOWLEDGEMENT

First and foremost, praise and thanks to God Almighty for his shower of blessings throughout my project work to be completed successfully.

The researcher wish to express her sincere gratitude with special thanks to her project supervisor, Mrs. U.B. Oviri whose professional advice, corrections, support, patience and encouragement that led to the success and completion of this project.

The researcher will also like to acknowledge the effort of the Dean, Faculty of Education, Prof. O.K. Omorogiuwa, Head of Department, Dr. (Mrs.) U. Momoh and to all her lecturers; Prof. I. Obasuyi, Dr. A. C. Eneh, Dr. (Mrs.) Ossai-Ugba, Mrs. U.B. Oviri, Barr. Meggison, Mr. Aliu, Dr. Ilevbare, Mr. Osagie, Dr. Tega, and Dr. Omorodion for all the knowledge they impacted on her and other members, both academic and non-academic staff.

The researcher is extremely grateful to her loving mother Mrs. Rachael Imarughe for believing so much in her, for her love, moral and financial supports towards my education. Also, to my siblings; Harrick, Laurina, Faustina, marvelous, Becky and Lauretha for their prayers motivation and financial support. And finally to my Guardians Mr. Bamidele Omotosho, Mrs. Priscilia Omotosho and her beautiful children; Ayodele Omotosho and Adeola Omotosho and Mrs. Sarah Enuwure.

Her sincere gratitude goes to all friends, Courage, Victory, Blessing, Excellent and Gladys who started this journey with her and completed it together. She really love you all, God bless you all.

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ABSTRACT

The study investigated comparative study on the role of information and communication technology (ICT) on Service Delivery in John Harris Library, University of Benin in Benin City, Edo State. The researcher was interested in finding out the roles that ICT plays in the library in enhancing effective Service Delivery. In doing this, the study sought to identify the extent to which ICT enhance Service delivery in John Harris Library, the level of ICT competencies of library patrons in enhancing service delivery in John Harris Library, the level of effectiveness of ICT on Service Delivery in John Harris Library, the challenges faced in the use of ICT on Service Delivery in John Harris Library and the strategies for enhancing the Effective use of ICT in John Harris Library. To guide the study, five research questions were raised. The study adopted a descriptive survey research design, with consists of Library Managements, Librarians, Library users and Researchers of John Harris Library, University of Benin, Benin City, Edo State. A total sample of 100 library management, librarians, library users and researchers were drawn using simple random sampling technique for the study, using a questionnaire. After the instrument was validated by experts, it was pilot-tested for reliability. The collected data were analysed using descriptive statistics. The findings of the study revealed that World Wide Web, printers, and photocopy machines enhance service delivery in John Harris Library. The findings of the study also revealed that there are significant challenges in the use of Information and Communication Technology (ICT) for enhancing service delivery in John Harris Library as regards issues such as inadequate funds, lack of IT professionals, insufficient training facilities, absence of ICT equipment, technophobia, lack of power supply, and personnel attitudes towards ICTs. The study revealed that including proper funding, training of library staff and users on ICT, provision of adequate electricity supply, prompt technical response, and adequate digital infrastructure, are the effective means for enhancing the use of Information and Communication Technology (ICT) on service delivery in John Harris Library. On the basis of the findings and conclusions reached, it was recommended that training initiative, enhancing of ICT infrastructure, optimising of ICT services, addressing power supply issues, network bandwidth enhancements prompt technical support, encouraging user participation and regular review and adjustments are the ways to ensure the use of ICT on effective service delivery in John Harris Library.

CHAPTER ONE

INTRODUCTION

Background to the Study

Today's libraries are transitioning from providing traditional library operations and services to computer-based library services, or using information and communication technologies (ICT) for library management. The development of information technology was rapid in the second half of the 20th century. It has changed how information is stored, processed, and communicated in the media. Information and communication technology (ICT), one of humankind's greatest creations, has altered how people and businesses connect with one another and their surroundings globally. Libraries do not stand out.

(Mahanta & Das 2019) emphasized that information and communication technologies (ICTs) have radically changed many parts of human pursuits, including libraries, as evidence for this claim. Libraries today make significant investments in the digitization of almost all library materials in order to provide users with efficient, engaging, and dynamic information services. As a result, advancements in communication channels have made it feasible for information to spread quickly throughout the globe. The ability of libraries to distribute information and offer services has significantly increased as a result of the widespread usage of the conversion of library items from print to digital and

web resources. Resources for information and communication technology (ICT) are being utilized more frequently in libraries to perform their jobs since they expedite and enhance the client experience. Society has been impacted by the different changes in how documents are gathered and dispersed. Since it now offers users a higher level of satisfaction, dependability, and performance, as well as faster and less complex programs that provide quick replies and a great deal simpler administration procedures, the transmission of information in libraries has significantly improved. The use of computers, bibliographic databases, online literature, and library series online are all popular ICT applications in libraries.

Information and communication technology (ICT) is a tool that librarians can use to enhance their skills and successfully carry out their duties for validating the library (Ahmad, Ameen, & Ahmad, 2021). Information has disseminated quickly as a result of new information and communication technology devices. ICT has changed how information is handled in libraries and research across all branches of knowledge globally. As a result of the intensification and integration of daily tasks using effective and efficient technology resources and services they offer electronically, modern library technological advancements have opened up new opportunities for gathering, managing, and disseminating scientific and technological knowledge. Libraries and information centers have been able to meet the different informational needs of their users by utilizing

ICT-based resources and services. There has been worry regarding the underutilization of specific resources and services in the world's libraries, despite the fact that these tools and services are completely utilized (Ijabula & Peter, 2023). ICT is used, among other things, for circulation digitization, reference services, and acquisition, selection, and ordering.

Effective service in the present day is challenging due to the volume, growth rate of information, and challenges posed by manually updated systems. The task for librarians and information professionals is to develop information systems for the gathering, management, sharing, and preservation of information and new knowledge in any format. With information being given in a variety of formats, the future is only limited by people's imaginations in this new era of knowledge. According to (Onuoha, Chikezie and Chukwueke 2019) any library services that is effectively provided, can increasingly meet the information needs of library patrons. In order to provide academics, students, and the general public with access to a wealth of knowledge and information, libraries have played a crucial role in human civilization. To stay relevant and provide useful services to its customers, libraries have had to evolve and adapt Information and Communication Technologies (ICT) due to the rapid rate of technological advancement.

Over time, ICT has changed the nature of library services, enabling some tasks and activities that have been performed manually to be done better and, at the same time, making possible some tasks and activities that were previously challenging or impossible

to complete manually. The traditional idea of a library has undergone a revolution, evolving from a "store house to an intellectual Information Centre" to include the idea of an electronic library. The term "library" now includes electronic, digital, or virtual libraries that can be accessed from anywhere as well as actual buildings that are situated in specific locations. Libraries have improved their productivity by modernizing numerous monotonous processes using ICT. This study focuses on the role of information and communication technology (ICT) on service delivery in John Harris Library, University of Benin in Edo State Nigeria.

Statement of the problem

The importance of Information and Communication Technology (ICT) in library service delivery cannot be overemphasized. The management, processing, and global distribution of information by library employees is now possible as a result of ICT. Consequently, users can now remotely access libraries' multimedia information from any location in the world. For instance, the Online Public Access Catalogue now allows library users to reserve their favorite library materials online.(Ogar, C.E and Dashu, T.Y. 2018). One of the successes of a library is on the satisfaction, clientels derived from services rendered and Information and Communication Technology (ICT) is the quickest and fastest way to actualize these successes (Bhoi 2017). The format of information will continue to change from print to digital and multimedia. This will greatly affect the access, retrieval and

delivery method and usage pattern (Vassilakaki, 2024). Libraries exist to provide access to information and resources, support literacy and education, encourage lifelong learning, and act as gathering places for the local community. It is obvious that without computers and internet it will be difficult for libraries to provide their clients with sufficient information in this age of information technology (Khan, J. 2016). Current developments have made manual library operations at John Harris Library obsolete. John Harris Library, must therefore adopt new cutting-edge technologies if they want to remain relevant in the twenty-first century. According to the preliminary observation and investigation that researchers conducted in John Harris Library, it appears that the application of ICT to the delivery of library services is insufficient for a number of reasons, including technophobia (fear of using technology) and the preference of the majority of the library staff for manual library operation. This could be due to a lack of awareness and properly trained personnel to handle the ICTs. Additionally, there aren't enough ICT resources available for efficient service delivery. In light of the foregoing, this study is being conducted to assess information and communication technology (ICT) and determine how it contributes to the efficient service delivery in John Harris Library, University of Benin.

Purpose of the Study

The broad purpose of this study, is to critically examine the role of Information and Communication Technology (ICT) on service delivery in John Harris library, University of Benin. Specifically, the study seeks:

- . To determine the extent to which ICT enhance service delivery in John Harris library.

- . To determine the level of ICT competencies of library personnel in enhancing service delivery in John Harris library.

- . To determine the level of effectiveness of ICT on service delivery in John Harris library.

- . To identify the challenges faced in the use of Information and Communication Technology (ICT) on service delivery in John Harris library.

- . To determine the strategies for enhancing the effective use of Information and Communication Technology (ICT) on service delivery in John Harris Library.

Research Questions

The following research questions guided the study

1. What is the extent to which ICT enhance service delivery in John Harris library?
2. What is the level of ICT competencies of library personnel in enhancing service delivery in John Harris library?
3. What is the level of effectiveness of ICT on service delivery in John Harris library?
4. What are the challenges faced in the use of Information and Communication Technology (ICT) on service delivery in John Harris library?
5. What are the strategies for enhancing the effective use of Information and Communication Technology (ICT) on service delivery in John Harris Library?

Significance of the study

This study will be of great benefit to Library management, Librarians, Library users and Researchers.

Library Management: Library management are responsible for organising, maintaining and overseeing the operations of the library. Therefore, the findings of this study will be of benefit to Library management in ensuring that ICT is used to facilitate easy access to library resources, authenticate users, monitor usage, manage licences as

well as maintaining databases to guarantee data integrity and promote effective searching, retrieval and distribution of library resources.

Librarians: Librarians are trained professionals who manage and provide library services to patrons. This study will sensitize Librarians in the institution about the pivotal role of information and communication technology (ICT) on library service delivery in order to meet the demands of users in the 21st century.

Library Users: library users are sometimes referred to as library patrons or clientels, who utilizes library resources and services for various purposes. This study we educate library users on how ICT can help them have an enhanced access to information and effortlessly search and retrieve information from a vast collection of resources through the creation of online catalogues, databases and digital repository.

Researchers: this study will theoretically, contribute to knowledge increase within the research community and act as a resource for academics and students who aspire to pursue additional research in a connected topic.

Scope of the study

The focus of this research is on how Information and Communication Technology (ICT) affects service delivery in John Harris Library University of Benin, Edo state Nigeria. The study also covers the personnel need for integrating ICT into the delivery of library

service. The study is therefore restricted to librarians, library patrons, and students studying library and information science at the University of Benin in Edo state Nigeria.

Definition of Terms

Information and Communication Technology (ICT): A group of communication tools, computer hardware, and software are together referred to as ICT. It also refers to software programs that collect, process, and make information accessible, hardware that helps run installed programs, and telecommunications tools and networks that make it easier to transfer information both inside and outside of an organization. (Kessington, Susan, and Rocky 2018).

Library: A library is a collection of sources of information and similar resources, made accessible to a defined community for reference or borrowing

Service Delivery: Service delivery can be defined as the university library's capacity to promptly respond to customers' requests for information in order to meet users' expectations. To encourage the delivery of services to library users, librarians should offer users timely information services in the form of print and non-print materials in a timely way. (Akpan, 2018). The management, processing, and global distribution of information by library employees is now possible due to ICT. As a result, users can now remotely access libraries' multimedia information from any location in the world. For

instance, the Online Public Access Catalogue now allows library users to reserve their favorite library materials online.

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CHAPTER TWO

LITERATURE REVIEW

The aim of this chapter is to comprehensively review related literature on the role of information and communication technology (ICT) on service delivery in John Harris library, university of Benin. It will be reviewed under the following sub-headings:

Conceptual Framework

Concept of ICT

The role of ICT on Library Service delivery

ICT Based User Services

The extent to which ICT enhance service delivery in John Harris Library

The level of ICT competencies of Library Personnel in enhancing service delivery in John Harris Library

The level of effectiveness of ICT on service delivery in John Harris Library

The challenges faced in the use of ICT on service delivery in Harris library

The strategies for enhancing the effective use of ICT on service delivery in John Harris library

Review of Empirical Literature

Summary of Literature Review

Concept of (ICT)

Information and communication technology is shortened to ICT. Blurton (2016), defined Information and communication technology (ICT) as a wide range of technological resources and instruments used for the production, , distribution, assembling and arrangement of data. Broadcasting, the internet, computers, the telephone and media (radio and television) are examples of these technologies. ICTs are essential instruments; they might be hardware devices such as laptops, projectors, and smartphones, as well as the software devices such as Word, PowerPoint, and Microsoft (Wang and Woo, 2017). ICT can be utilized in English as a foreign language (EFL) instruction to support the acquisition of the four fundamental English language skills: reading, writing, listening, and talking.

According to Perron,et al (2022), information and communication technologies (ICTs) are electronic devices that can be used to access, transfer, and store information. These technologies have been greatly influenced by the internet. Selvan et al (2021), offered an additional description of ICT, characterizing it as the amalgamation of telecommunication and communication (wireless and phone lines) signals), devices, entity foundation, and relevant applications, data transmission and an audio-visual management system that enables users to to create, link, save, share, and work with data. Information and Communication technology (ICT) can be defined as electronic

equipment that includes hardware, software, and all operations associated with processing, manipulating, managing, and transporting information.

Information and communication technology (ICT) is the collection, manipulation, archiving, and distribution of spoken, visual, written, and numerical data through a microelectronics-based computing and communication system (Shaibu, Oshioigwe, & Mbaegbu, 2018). ICT was further defined by Amaewhule and Appah (2019), as the technology that facilitates information generation, storage, manipulation, and communication as well as the associated techniques, applications, and management. This indicates that ICT helps to make the use of technology capabilities for information recording, storing, processing, retrieving, and sending feasible Information in various forms. (Dambo & Wokocha, 2020). ICT can be seen as a real term that can be used to refer to technologies that are utilized for gathering, storing, altering, and transmitting data in accordance with the aforementioned conceptualization. The aforementioned concept both distinguishes and connects various ICT fields so that they function as a single unit. Kundishora (2017).

Information and communication technology (ICT) is essential to the development of every nation. It is impossible to overestimate the significance of information and communication technology (ICT) in today's nation, particularly with regard to school administration and sustainable educational development. Carrion et al (2020), claim that

as technology permeates more facets of society, it has an increasing impact on people's day-to-day existence. Information and communication technology (ICT), according to Zurich (2016), made our work more sustainable by preserving energy and material capital, improving people's quality of life without endangering the ability of future generations to meet their needs, and requiring less physical labor overall. Information technology, according to Kadir, Yusuf, and Rasheed (2018), is a group of tools that let you deal with data and complete tasks related to data processing. Up until recently, information technology was believed to be the source of the term ICT. However, due to communication's significance and meaning, information technology should incorporate communication as a fundamental component, as stated by Hang and Keen in Nwogu (2017).

In the library, information technology is defined as the study, arrangement, processing, and distribution of textual, numerical, photographic, and audio information. To put it another way, multimedia refers to the wide range of activities that include gathering, organizing, storing, and retrieving data in text, numeric, audio-visual, and photographic formats, as well as combining all of the aforementioned formats into one cohesive whole. This process is best characterized by the combination of computer technology and communication devices. IT, as defined by Marshall (2019), is the application of technology to information handling, including generation, storage, processing, retrieval, and distribution. It is the combining of computing and telecommunications for the

purpose of handling information. IT is all forms of technology applied to the processing, storing, and transmitting of information in electronic form, according to Emuakpor (2022). She emphasized that the physical equipment used for this purpose includes computers, networks, fax machines, and electronic devices like pocket calculators. According to Ayo(2019), it is essentially the use of computer systems and telecommunications equipment for information handling. It is made up of three main parts: computer-based electronic processing; telecommunication-based information transmission; and multimedia information dissemination. Thus, every electronic hardware and infrastructure used by librarians to provide effective services is included in library IT. To enable the sharing of available content, especially library webs, such equipment, broadly speaking, consists of hardware, software, and communication networks between the service channels of various libraries. In related news, Osundina (2020) noted that modern libraries need to come up with efficient ways to transfer the contents of their holdings quickly and efficiently so that people may use them. They shouldn't just store and maintain materials. According to Ogunsola (2018), people's lives, jobs, and leisure activities have changed significantly as a result of the rapid advancement of new technology.

According to Capron (2016), the conventional means by which people transmit and receive information are mail, phone, television, radio, books, newspapers, and magazines. However, since the middle of the 1960s, data communication systems, or computer

systems, have also transmitted data over communication lines, like telephone lines. The modern world has transformed information access through the usage of the internet, and libraries benefit from its application in every facet of their operations. The most popular tech tools include e-mail, Usenet, Telnet, FTP (File Transfer Protocol), and the World Wide Web. These technological tools are all thought to be essential to the concept of globalization. The internet continues to have a significant impact on the evolution of information utilization, especially in academic institutions. It facilitates fast and efficient commerce communications and supports international cooperation among organizations and individuals.

According to Ogunsola (2018), these technologies have the capacity to create "virtual campuses" and "virtual libraries," which would increase student access and involvement. Nancy Schiller was one of the first authors to use the term "virtual library," which she defined in 2023 as "libraries in which computer and telecommunications technologies make access to wide range of information resources possible," according to a study done by Daniel (2017). These days, the idea is known by many different names, including "digital library," "electronic library," "community network," and even just "library without walls" (Ogunsola, 2018). The concept, organization, functioning, and management of libraries and information systems have undergone substantial changes as a result of recent breakthroughs in ICT, which have also greatly expanded the ability to access, store, and process information within libraries (Peyala, 2018). Information

retrieval and search operations have been made easier by the ICT revolution. ICT increases organizational management processes' efficiency and offers fresh approaches to enhancing its users' ability to respond (López, Peón, & Ordás, 2019). ICT application use can help with explicit and tacit knowledge creation, storing, sharing, and utilization (Okumus, 2016).

According to Anunobi and Edoke (2018), university libraries are essential information-providing systems that provide a variety of information materials to support teaching, learning, and research. Serials or periodicals are the most required information materials, mostly for researchers and faculty. Serials were operated manually in the past, but as ICT developed, obtaining and retrieving serials or periodicals became simple. According to the previously mentioned viewpoint, people' curiosity about knowledge shifted from print to electronic resources. Haneefa (2017) looked into the use of ICT in Kerala, India's special libraries. The study found that the typical area for automation was the library catalogue. The report suggests adopting ICT more successfully and efficiently as well as streamlining the automation process. The Indian method for using information technology for copy cataloguing from many reliable sources, including the Library of Congress catalogue and IndCat, was presented by Chandrakar and Arora (2020). Consequently, the overall evaluation highlighted how important it is to employ ICTs in libraries properly.

Moreover, Saleem et al. (2019) noted that the digital convergence of computer,

telecommunication, and other media communication technologies led to the development of ICT. Additionally, they claimed that Patil, Kumbarand, and Krishananda categorized the following information technology (IT) components: computer technology, communication technology, reprographic, micrographic, and printing technology. These components are commonly used in libraries and information centers.

The role of (ICT) on Library Service delivery

Globally, the application of information technology in the library and information sciences has achieved great success. Not only does information technology impact libraries' technical services, but it also shapes the services that are offered to the general public. Libraries all throughout the world have been investigating new technologies to give their patrons faster and more effective access to a wealth of information resources and information services. Better ways to increase productivity, efficiency, and quality of service in libraries have been made possible by information technology (Sahu and Rasul 2021). Similarly, advancements in the sciences and the use of ICTs—particularly the Internet, Intranet, and other comparable networks—have continued to have a positive impact on the practices of information seeking behavior and practice, the arts, education and training of information professionals, and library and information service delivery procedures.

The field of library and information science (LIS) is evolving, and as ICTs become more

and more prevalent, LIS professionals must acquire new IT skills to be relevant in today's changing society. It is intended for Nigerian LIS schools to prepare students for this challenging situation. The impact of Information and Communication Technologies (ICTs) has been evident in all spheres of human endeavor, including the widely recognized field of library and information science. It has been observed that the widespread use of ICTs has led to the term "Information Society" being used to describe today's society. In Nigeria, the libraries of many tertiary institutions lack internet access and computerization. The use of ICTs in Nigerian higher education institutions has drawn criticism for acknowledging the significant role that technology can play in delivering library services, despite the fact that most of the nation's tertiary institution libraries do not properly utilize ICT. The issue of plagiarism and the abundance of information available additionally complicate the process of choosing the best information technology (Smith, 2016). ICT provides a true solution in this respect.

These days, libraries can perform organizational, administrative, and technical services using a variety of information and communication technologies. Numerous digital and electronic media, computer-assisted electronic appliances, and the internet have made it possible to retrieve and disseminate knowledge and have played a crucial role in the successful modernization of libraries. Among the most notable are the following:

Library Automation

Mishra et al. (2017) define library automation as the use of computers, related peripheral media (such as disks, magnetic tapes, and optical media), and computer-based products and services in the execution of various types of library operations and functions. Because they are electronic, programmable, and have control over the activities they carry out, computers have the ability to greatly increase the automation of operations.

Library Networking

Library networking is the term used to describe the activities that arise from a formal or informal agreement between a number of libraries (often a consortium or network) to exchange resources such as staff, buildings, data, collections, and other materials in order to benefit their users and lower the cost of collection development. A form of operation known as library networking allows several libraries to share common functionality (Muthu, 2018).

Library Management System

The term "library management system" refers to an application that is typically used to describe small- to medium-sized library systems. A computerized system is utilized by the librarian to run the library, allowing them to record different activities such as book loans, book returns, new book additions, student additions, and so on (Kumar et al, 2016).

Technical Communication

Technical communication includes, among other things, DTP systems, editing, publishing, and technical writing. According to Desai (2019), in technical communication, particular information must be communicated to a particular readership, audience, or spectator via written, spoken, or visual means. When it comes to a plant, process, person, or method, technical communication should result in a conclusion that can be used to make decisions or prompt action. It ought to provide some specific, factual information. Similar to a prescription drug, it needs to be precise.

ICT Based Services

According to Saleem et al. (2019), a growing number of library patrons are embracing electronic habits and utilizing new ICT, such as computers, the Internet, the Web, intranets, extranets, and other technologies. Consequently, patrons of libraries are putting further expectations on them. They need to have access to ICT facilities so they may use them for work, as well as the most recent information and updated information resources.

ICT use in libraries increases patron pleasure. It offers library patrons many advantages.

Saleem et al. (2020) list a few advantages:

- Offers quick and simple access to information;
- Enables users to access information remotely.
- Gives consumers access around the clock

- Offers limitless access to data from many sources.
- Offers information flexibility for any individual to use in accordance with their needs
- Offers more adaptability
- Makes it easier to combine and reformat data from many sources.

In addition, libraries offer their patrons a range of ICT-based services, which include the following, as listed by Saleem et al (2019)

- Offering OPACs Web access;
- Electronic document delivery
- Resources for networked information
- Information delivery to users' desktops
- Online guidelines, and
- Reader advisory services offered online.

The use of computers has changed how people use libraries and information. Information technology has made it easier for library staff to offer high-quality, value-added information services and to allow more distant access to globally accessible information resources. Massive volumes of data or information may be stored in relatively small spaces thanks to today's extremely advanced information technology. Information technologies transform our understanding of the roles of a conventional

library and a contemporary information center and offer quick retrieval of stored knowledge. The way libraries operate and provide services has undergone a significant transformation due to recent technological advancements (Saleem, et al 2019). Numerous facets of libraries and the information discipline are being impacted by today's IT. Digital media and information sources are driving advancements in information and communication technology (ICT), making them the primary means of storing and retrieving information. Furthermore, Saleem et al. (2019) said that ICT also endures and upholds the principles of library science, such as "Every reader his/her book/information," "Save the reader's time," and "Library is a growing organism." Furthermore, ICT eliminates space barriers and shortens response times by providing exceptional information sources, quick transmission, and easy access. It also guarantees that the appropriate information reaches the correct reader at the right moment. Additionally, it intensifies and interprets the library's need for collection Development. The efficient use of technology in libraries increases user happiness. Modern technology is required to provide library services that are more accessible and quick in the current environment. New technologies are created gradually, thus we must increase our knowledge and ability to offer better library services. Use of library resources must be extensive. The caliber of the service is always what determines a library's and a librarian's success. The new paradigm for raising the bar for library operations and services is the development of ICT. Therefore, for the sake of their own survival, library professionals

must stay current with technology. The information landscape has undergone significant transformations in the modern era thanks to computers and related technology. As the majority of people on the planet become more technologically savvy, we may be entering the most exciting time in human

history. Daily changes are occurring in society as a result of ICT, which has been found to have an impact on nearly every aspect of human existence, including how individuals interact and think. It is now difficult for libraries and information centers to operate without computers and other information technology due to this revolutionary transformation. The field of libraries and information has evolved in the modern era to keep up with the advancements in communication and information technologies. These technologies have grown so important that adopting them will either make you thrive or become obsolete. A well-stocked library with the latest information technology and infrastructure could meet the needs of today's tech-aware patrons to the fullest extent possible.

The extent to which (ICT) enhance service delivery in John Harris Library

Because they help universities achieve their goals of teaching, learning, research, and other community services, libraries play a vital role in universities Adigun, et al (2016). The use of information and communication technology has caused a transformation in service delivery in John Harris library over time. This shift was noted for both users and

the procurement and utilization of resources. These days, libraries use ICT to provide services like interlibrary loans, chat support, e-mail, bibliographic, web 2.0 interactive sharing, photocopies, electronic contents, book and serial, circulation, cataloguing and classification, referencing, money transition, acquisition, and documentary delivery.

In addition to the many advantages that remote libraries get from these chances, university libraries are also able to offer users quick access to critical information Ramzan and Singh (2019) One of the most significant developments of the last century is thought to be the internet Gulati (2017). The World Wide Web has had a significant impact on libraries, particularly with regard to the logistics of providing services Adeleke and Olurunsola (2020). He assert that thanks to the internet and email capabilities, academic libraries can now offer global access to a wide range of knowledge without regard to physical location.

ICT in libraries has made information easier to access and provides a platform for interoperability and library collaboration. It is a true instrument for e-learning globally (Oyedokun, 2018; Oyedokun, Oyewumi Akanbim, & Laaro, 2018). Additionally, the researchers observed that by enhancing library productivity, operations, and services, it also offers improved administration of library operations. The body of research suggests that, given its many advantages, ICT implementation in libraries is crucial, as stated by Chukwueke and Onuoha (2019). These benefits include: improving the efficacy and efficiency of library services; cutting down on access times; improving the placement and

retrieval of material; conserving physical space within the library; etc. With a variety of user-friendly library services and facilities, ICT has expedited e-librarianship. The concept of electronic libraries, hypertext, teleconferencing, and Online Public Access Catalogue (OPAC) for the use of libraries and information services has gained widespread acceptance. Scientific advancements have had a significant impact on libraries, and electronic automation and telecommunications have largely replaced the functions

performed in libraries (Wawu, 2019).

The level of (ICT) competencies of library personnel in enhancing service delivery in John Harris Library

The ability to carry out a task correctly and effectively is known as competency. To execute a task, one must possess the necessary skills, abilities, and qualities. It also often characterizes how skilled a person is in carrying out a specific duty or endeavor. An individual's competence is defined as their aptitude, skill set, and capacity to carry out tasks effectively. Competency, according to Ojiegbe (2018), is a means of showcasing an individual's knowledge, abilities, experience, and qualities to successfully perform a specific function (Shiekuma, Olatunji, and Kabiru, 2020). Competency is a collection of predetermined skills that offer an organized framework for measuring and assessing an individual's performance competency in carrying out a task. A mix of theoretical and

practical information, abilities, conduct, and values that are required to enhance a performance might be considered competencies. It might also be understood as the state or attribute of having the necessary tools and training to carry out a certain work. To support the aforementioned, Oyedokun et al. (2018), referenced in Larzen (2016), emphasized that competency is a blend of theoretical knowledge and real-world experience that serves as the foundation for an individual's ability to execute a task correctly. Oyedokun, et al (2018). Cited Ferreira et al. (2017) highlighted the need for education and training to develop competences, which are knowledge, skills, abilities, and attitudes. The measurement of competence aims to gauge an individual's professionalism. The ability of library employees to successfully select, acquire, organize, save, retrieve, and distribute material using ICT means is a measure of their competency. Studies have demonstrated that there are two categories of competencies for librarians: professional proficiencies, which deal with information technology, leadership, managerial, and information resource knowledge; and competencies, which are a combination of abilities, values, and attitudes that stress lifelong learning and adaptability. In light of the aforementioned, Gulati and Raina (2016) stated that having an understanding of both print and electronic information resources is a competency requirement for librarians.

According to Aschroft and Watts (2016), Nigerians' underuse of information resources is the cause of the skill gap. Ferdinand (2016) noted that developed and developing nations

exhibit a digital divide, which is demonstrated by the fact that digitally affluent nations have higher rates of ICT-competent librarians than do third-world nations. In order to have proper and successful globalization and for LIS professionals in this region of the world to have an acceptable level of ICT competences, it became necessary to bridge this longing gap. Reflecting on this, Iguehi et al. (2017) cited Itsekor and Ugwunna (2018) to highlight how ICT has changed the face of librarianship, with library and information science professionals now responsible for creating, processing, storing, manipulating, and disseminating information electronically instead of just being book custodians. Therefore, in order for library staff in John Harris Library to remain

relevant in the twenty-first century, they must acquire a certain set of ICT skills and abilities.

The level of effectiveness of (ICT) on service delievery in John Harris Library

ICT offers effective and efficient means of carrying out information-related tasks. Users benefit from its ease of use, rapidity, accuracy, and precision of information. In the twenty-first century, information and communication technology (ICT) plays a major role in the success of library services. Libraries that possess the requisite infrastructure can leverage the ICT expertise of their staff to enhance their offerings. Research was done in 2088 by Antherjanam and Sheeja to determine how well information and communication technology (ICT) can be used in library and information science (LIS) and what changes

and improvements can be made in certain particular libraries. The study's main conclusions were:

- (a) Users are utilising the available ICT facilities to great effect.
- (b) Reference inquiries are handled more quickly than in the past thanks to the telephone, email, fax, and other means.
- (c) Faster than previously, Selective Dissemination of Information (SDI), Current Awareness Services (CAS), etc.
- (d) Book returns and issues are handled more quickly than in the past.
- (e) Using ICT, book selection and price checking are also completed quickly and effectively.
- (f) Approximately 90% of library patrons look up information via the OPAC.

The effects of information and communication technology (ICT) on library operations, systems, services, and resources have been shown. It has produced one of the greatest innovations in library history and is rapidly altering the nature of libraries and the function of librarians. In a similar spirit, Onuoha, Chikezie, and Chukwueke (2019) asserted that information and communication technology (ICT) facilitates the seamless integration of diverse library operations and boosts productivity in data collecting, access, cataloging, categorization, information retrieval, and distribution. It gets rid of tedious and repetitive work, reduces effort duplication, and broadens the scope of services. Information and communication technology (ICT) has brought about a great change

in the running of activities in John Harris Library.

The challenges faced in the use of (ICT) on service delievery in John Harris Library

In 2019, Onuoha, Chikezie, and Chukwueke carried out a study at the Michael Okpara University of Agriculture Library in Umudike, Nigeria, on the use of ICTs in academic library services delivery. One of the study's conclusions indicated that the MOUUAU Library's endeavor to integrate ICTs into the provision of its services was severely hampered by the high cost of ICT purchase. It was also discovered that one of the obstacles to ICT application in MOUUAU Library was unreliable power supply, insufficient financing as a result of the underfunding of the library and a lack of resources for earning extra cash in the library. Unfortunately, these are challenges affecting most libraries, and John Harris Library is not excluded. Assuming that the integration of ICT into library services offers flawless and trouble-free information management options is deceptive. Lack of funding is one of the many issues that arise when ICT is used to library operations. ICT requires a significant financial investment for procurement, setup, upkeep, training, and sustainability. Because of this, not every library has the resources to invest in and maintain ICT on their own. Oni (2017) found that Nigerian libraries receive relatively small financing for their ICT budgets. He found that the ICT budget was low in sixty percent (60%) of the libraries he surveyed. His research corroborated Oketunji's (2019) findings, which also showed that a higher proportion of libraries do not regularly provide funds for ICT. Omekwu (2019) made the point that the initial outlay for system

research, design and implementation, and hardware and software acquisition may be highly costly.

Insufficient power supply: The operation and the functioning of ICT devices are entirely dependent on the power supply of electricity. ICT use in the library is seriously threatened by Nigeria's unpredictable, epileptic, and frequently occurring power outages, which show no signs of abating. According to Nnadozie (2017), underfunded libraries are unable to afford the costly and unreliable alternate power supply. According to Omekwu (2019), large databases can crash and cause major damage to computer hardware when an epileptic power supply is used. This is among the factors contributing to the lack of enthusiasm among many information workers for computer-based library systems. Remarkably, frequent power outages continue to be an issue in the nation and pose a significant threat to automation. Because of this, operating power plants becomes unaffordable for libraries. Furthermore, one of the issues preventing the use of ICT in libraries is the absence of internet accessibility and telecommunication/telephone facilities in Nigerian libraries, (Nnadozie, 2017). The use of ICT in libraries is hampered by a number of factors, according to Nwabueze and Urhiewhu (2016), including epileptic power supplies, a lack of online databases, inadequate or slow band width, inadequate computers, network issues, a lack of ICT skills, a lack of formal Internet use training, slow servers, and frequent breakdowns.

Insufficient technical expertise and training: The majority of information professionals in

the nation currently possess little to no ICT proficiency; they are ill-equipped to handle computers, browse the internet, and retrieve information. Although information technology can have advantages, Oni (2017) found that effective implementation requires staff members to be knowledgeable about current technological trends, which may not be the case for them, an analysis of the library's specifications and requirements, and ongoing user education—which is a major hindrance to the efficient and effective use of ICT tools in the library.

Furthermore, there is the problem of technophobia, which has been a major worry, particularly for traditional libraries like John Harris Library who exhibit dread while handling computers and the equipment that goes with them. Omekwu (2019) corroborated this claim by revealing that library employees' conservative attitudes toward the adoption and application of ICT in library operations and services represent a risk to their employment. Insufficient infrastructure: inadequate infrastructure foreshadows a significant barrier to the application of ICT. To access, retrieve, and distribute information, information and communication technologies combine hardware and software. Information professionals and users may not be able to fully utilize the resources on site if there is insufficient bandwidth, antivirus software, or other software.

The strategies for enhancing the effective use of (ICT) on service delievery in John Harris Library

The methods, schemes, plans of action, approaches, schedules, master plans, or blueprints that organizations, institutions, or people undertake to carry out any action with the aim of completing tasks are typically referred to as strategies. Technology-driven development is the norm in the developing world, and ICT providers have been gearing up to keep up with the global trend and avoid being left behind. Etim (2016) noted that librarianship education must be the first step in developing methods to address the difficulties posed by the use of ICTs in Nigerian university libraries. He emphasized that support for ongoing professional development is essential, particularly for ICT core abilities.

The following tactics should be used, according to Ademodi and Adepoju (2019), to enhance the use of ICT in libraries:

- a. More resources and time should be devoted to ICT infrastructure acquisition and training in Nigerian university libraries.
- b. Training ought to focus on the impending computerization of library systems.
- c. Librarians should look for funding from numerous international foundations and agencies that provide libraries with equipment and financial support.
- d. Lastly, the National Universities Commission should establish a policy requiring all universities to automate their libraries within a given time frame.

In a similar vein, Mutula & Mutula (2017) list a few tactics that should be used to enhance the ICT application and work performances of library employees in the digital age, including:

- a. Improving ICT accessibility for all by deploying reasonably priced devices.
- b. Enhancing the connectivity within libraries.
- c. Enabling universal access to information through ICT use.
- d. Raising public knowledge of ICTs' capabilities.
- e. Improving people's ability to take use of ICT advantages.
- f. Offering ICT technical support and assistance as well as making suitable electric power sources available.

In Nigerian university libraries, motivation is a key tactic that may be used to increase ICT application and human resources development. A study on the use of ICT in India's human resource development, Kamali, et al (2019) observed that when workers find their occupations fulfilling, demanding, and have a positive work environment, they are more likely to work hard and complete their responsibilities with enthusiasm. Put differently, workers won't give it their all if they are envious of the conclusion of the workday, feel disconnected from the results of their labor, and think their task is extremely dull. They'll stay in their positions by doing the bare minimum. They lack motivation to do well, to put it another way, effectiveness of service delivery in John Harris library is reliant on job motivation.

Review of Emperical Literature

Igere (2022) conducted a study on the impact and barriers to the use of information and communication technologies (ICT) in John Harris Library, University of Benin. Participants in the study were registered patrons of the John Harris Library, and the descriptive survey design was used. Data from 137 respondents were gathered via the questionnaire. Frequency counts and basic percentages were used to examine the results. The main ICT resources available for use in the library include computers, printers, satellites, the internet, and photocopiers. Computer classes, user education, books, friends, and orientation are the main ways that the majority of respondents learn ICT skills. Apathy on the part of the government, inadequate funding, subpar power supply, a maintenance culture, and system failures are the main obstacles to ICT use in libraries. Other pertinent ICT facilities should be made available and usable in addition to the internet, according to the recommendation. Additionally, orientation programs and initiatives aimed at equipping students with the tools they need to use ICT effectively should be implemented. For the library to maintain its ICT facilities, adequate funding must be given. Finally, in order to complement the ground power supply, an additional one should be supplied.

Yusuf and Fasae (2021) carried out a research on the use of Information and Communication Technology (ICT) as Correlates of Service Delivery by Library Personnel in Ekiti State Universities, Nigeria. The study investigate the relationship

between ICT use and service delivery in Nigeria's Ekiti State universities. The study's research design was a descriptive survey. One hundred and fifteen (115) library staff members work at Ekiti State's library and three universities make up the population. Because the population is tiny, the total enumeration technique was used to choose all of the library staff. The study tool was a self-structured questionnaire, and percentages and mean were used to analyze the results. The results indicate that, among other ICT resources, university libraries utilize photocopiers, printers, computers, OPACs, Internet services, and scanners to provide services. The frequency of usage of these resources is moderate ($= 51.35$). The survey found that among the services provided by library staff, the most popular ones were the circulation of new arrivals services, current awareness programs, and the selective dissemination of information. The usage of ICT is essential to library staff members' ability to provide efficient services. Librarians must therefore develop higher order thinking skills and get all the tools necessary to operate in a computerized and digital environment.

Adeniran, et al (2020) carried out a study on Information and Communication Technology (ICT) applications in academic libraries in Kwara State, Nigeria: Advancements and Obstacles. The study looked into how information and communication technology (ICT) was used in a few Kwara State libraries. Seven (7) academic libraries in Kwara State made up the study's population, which was surveyed

using a descriptive survey technique. Purposive sampling was used in the study to get the necessary data from the chosen academic library employees in Kwara State. In the chosen academic libraries, there were 83 academic librarians in total. A survey methodology was employed to encompass all academic librarians. The data was gathered using a self-created survey called Survey Questionnaire on the Application of Information and Communication Technology on Academic Library Services (SQAICTSAL). To address the study topics, data were analyzed using frequency counts and percentages. The study's findings indicate that Kwara State's academic libraries are mostly at a developed stage when it comes to offering ICT resources. Despite this, the study found that the majority of the academic libraries surveyed lacked smart boards (9.5%) and computerized security doors (0.0%), but all other ICT facilities—including computer systems, CD/DVD players, internet access, and slide projectors—were highly rated (95.2%), followed by CCTV cameras (95.2%), electronic databases (92.8%), library automation software (91.5%), and barcode scanners (73.5%). According to the study's findings, having sufficient ICT resources available in academic libraries would transform the way that information services are delivered, and when ICT is used more frequently in these settings, the amount of material that library patrons may access will increase significantly. As a result, the relevant library authorities should give library professionals the support they need when using ICT and offer opportunities for staff development by having them attend seminars, workshops, and short courses to improve their technical skills for proper

implementation and the delivery of effective and efficient services to library users.

Ekere, et al (2020) research on the topic: The utilization of modern technology for service delivery in libraries in South-East Nigeria. The study's objective is to investigate how contemporary technologies are used in a few libraries in South-East Nigeria, to supply services effectively. The study was specifically led by two goals and two research questions. The survey design used in the study was descriptive. Thirty librarians answered a standardized questionnaire that the researchers created. "Utilization of Modern Technology for Effective Service Delivery Questionnaire" (UMTSLCQ) was the name of the questionnaire. Experts validated it, and a frequency table was used to establish its reliability index, which came out to be 2.5. For clarification, the gathered data were tabulated and subjected to frequency counts and table analysis. The study's conclusions demonstrated that, despite the fact that they enhance many of the services offered by libraries, most of the southeast's academic libraries do not effectively use contemporary technologies in their service delivery. Based on the findings, recommendations were given, including sufficient financing, regular and ongoing staff training to improve their proficiency with current technology, and thorough sensitization of librarians on the right use of these tools. In light of the findings, recommendations were made at the end of the investigation.

Finally, Odionye (2016) examine the availability and utilization of ICT facilities in the University of Nigeria's Nsukka library. The study found that while there are ICT facilities

in the UNN library, some are more readily available than others. The most often utilized resources for obtaining reference materials, finishing project work, current information, and lecture notes include the OPAC, internet, and virtual library. The results showed that inconsistent cooling conditions and power supplies posed the biggest obstacle to the utilization of ICT facilities. Based on these conclusions, the study made several recommendations, including that government and university administration continuously purchase and provide ICT resources for the library and that the UNN library have a steady power supply. These actions will improve the ICT facilities' efficient operation and use.

Summary of Literature Review

The research examined relevant literature regarding the role of information and communication technology (ICT) on library service delivery to John Harris Library, University of Benin clients. After reviewing relevant literature, it was found that academic libraries are essential to ensuring that the parent institution's mission is fulfilled by offering a wide range of services, including loan services, bibliographic services, current awareness, and selective information dissemination. However, the researcher's observations showed that students complain about the subpar services provided by the library, despite the efforts of the staff to provide effective and efficient services to meet users' information demands. Less or no use of library services has resulted from this. Given the advancements in ICT and the digital world, it is reasonable to assume that

librarians will use technological tools like the online public access catalogue (OPAC), digital library services, electronic documents delivery services, current awareness services (CAS), audio-visual services, online user education, electronic theses and dissertations (ETDs), electronic mails (E- mails), open source software service, documents scanning services and ask-a librarian service to ensure effective service delivery in the library. The aim of the study is to examine the need for integration of information and communication technology (ICT) in disseminating effective and efficient library delivery services to library patrons in John Harris library, university of Benin.

CHAPTER THREE

METHODOLOGY

This chapter describe the research methods and procedures used by the researcher for this study. It will be discussed under the following sub-headings: Research design, Population of the study, Sample and sampling technique, Research instrument, Validation of the Instrument, Reliability of the Instrument, Method of data collection, and Method of data analysis.

Research Design

According to popular idea, research designs are the general tactics used by researchers to combine several study components logically in order to successfully answer a research problem. The researcher used a survey research design for this investigation. This results from the study's design, which samples people's opinions and viewpoints.

Singleton & Straits (2016) state that survey research can employ both qualitative and quantitative research tactics (i.e., open-ended questions, numerically rated items on questionnaires, etc.) or both (i.e., mixed methods). Surveys are extensively employed in social and psychological research because they are commonly utilized to characterize and investigate human behavior.

Population of the Study

Udoyen (2019) defines a research population as a collection of elements—or individuals, depending on the situation—that have comparable traits. Location, gender, age, sex, and particular interests are examples of these comparable traits. The focus of the research population is that it consists of well-described persons or items.

This study's overarching goal is to investigate the role of information and communication technology (ICT) in library service delivery in order to improve the quality of library service disseminated to patrons in John Harris Library, university of Benin. The study's participants are residents of Benin city, Edo state. The population of the study consists of library management, librarians, library users, and researchers.

Sample and Sampling Techniques

According to Udoyen (2019), the sample size is that part of a whole in which members have similar traits or characteristics. An organized selection of a population that is used to deduce results about the population is known as a study sample. To calculate the sample size for this investigation, the researcher used the practical sampling approach.

According to Nwana (2018), sampling techniques are methods used to systematically choose the selected sample in a specified manner while maintaining controls. Convenience sampling was used in this study to choose respondents from the entire

population. A convenience sample is one in which the researcher has chosen some aspects from the target population based on their convenience or accessibility (Torty 2021).

The sample size for this study was determined by the researcher using the convenient sampling approach. One hundred (100) participants, or the sample size, were conveniently chosen by the researcher from among all of the library management, Librarians, library users, and researchers at the University of Benin, Edo state Nigerian.

Research Instrument

The Instrument for the study is a questionnaire of 35 items used to elicit information from respondents. The questionnaire was the research tool employed in this study. The enrolled individuals were given a survey with a set of questions. The questionnaire was split into two sections: the first asked questions about the respondent's personal or demographic information, while the second half addressed the study's aims and sought to address the research questions. It was necessary for participants to indicate their response by checking the corresponding column. The researcher herself administered the questionnaire.

Validation of the Instrument

The term "validity" refers to the degree or extent to which an instrument genuinely measures the desired construct. A tool is valid to the extent that it is designed to meet the goals of the study. The study's questionnaire was created by the researcher and given to the project supervisor, who utilized his academic background to evaluate the instrument's validity for the study by applying critical, analytical, and logical thinking to assess its relevance to the claims and contents. Also two experts from the Department of Educational Management, University of Benin will check the validity of the study. Their inputs and corrections in terms of clarity and appropriateness of language will be used to develop the final draft.

Reliability of the Instrument

The study instrument's dependability was assessed. To assess the instrument's dependability, the Pearson Correlation Coefficient was employed. The study instrument was deemed reasonably dependable with a co-efficient value of 0.68. The range of a reasonable dependability, according to Taber (2017), is 0.67 to 0.87.

Method of Data Collection

Data were Collected using two different methods: primary sources and secondary sources. Structured questionnaire's were used as the major source, and government materials,

textbooks, the internet, journals, published and unpublished works, and magazines were used as secondary sources.

Method of Data Analysis

The responses were analyzed using descriptive statistics and tables which provided answers to the research questions. The responses will be statistically analyzed by the use of absolute frequency and percentages.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

This chapter present the result and discussion of findings in line with the research questions asked. This chapter is discussed under the following subheadings:

- Analysis of the respondents' bio-data
- Answering of the research questions and
- Discussion of findings.

Section 4.1: Analysis of respondents bio-data

Section 4.1: Analysis of the respondents' bio-data

Table 4.1: Gender distribution of the respondents

Gender	Frequency	Percent (%)
Male	49	53.8
Female	42	46.2
Total	91	100

Source: Field Survey, 2023

From table 4.1 above, majority of respondents were male as they accounted for 53.8% of total population while female respondents made up the other 46.2%

Table 4.2: Age distribution of the respondents

Age	Frequency	Percent (%)
16 – 26	46	50.5
27 – 36	14	15.4
37 – 46	19	20.9
47+	12	13.2
TOTAL	91	100

Source: Field Survey, 2023

Table 4.2 shows that there are more of age 16-26 who accounted for 50.5 of total respondents. This was followed by age 37-46 who accounted for 20.9% of respondents with a total of 19 respondents, next is age 27-36 who accounted for 15.4% of respondents with a total of 14 respondents and finally, age 47 and above who accounted for 13.2% of respondents with a total of 12 respondents.

Table 4.3: Status Differentiation of respondents

Status Differentiation	Frequency	Percent (%)
Library management	11	12.1
Librarians	18	19.8
Library users	42	46.1
Researchers	20	22.0
Total	91	100

Source: Field Survey, 2023

The Analysis of distribution of status Differentiation as seen in table 4.3 above shows that the majority of respondents in this study, were library users who accounted for 46.1% of total respondents. This was followed researchers who accounted for 22.0% of respondents with a total 20 respondents, followed by librarians with 19.8% of respondents with a total of 18 respondents and library management who accounted for 12.1% of respondents with a total of 11 respondents.

Table 4.4: Educational Qualifications of respondents

Educational qualification	Frequency	Percent (%)
100 L – 400L	37	40.7
O.N.D/Diploma	9	9.9
B.S.C/HND	24	26.4
Masters	16	17.6
P.H.D	5	5.5
Total	91	100

Source: Field Survey, 2023

Analysis of distribution of educational qualifications of the respondents as shown in Table 4.4 shows that majority of respondents were in 100L- 400L as accounted for 40.7% of total respondents. This was followed by respondents in B.S.C/H.N.D level who accounts for 26.4 % of respondents with a total of 24 respondents, followed by respondents in masters level who accounted for 17.6% of respondents with a total of 16 respondents. Respondents in Diploma level accounted for 9.9% of total respondents with

a total of 9 respondents and finally, respondents in P.H.D level who accounted for 5.5% of respondents with a total of 5 respondents.

Section 4.2: Answering Of The Research Questions

Question1: What is the extent to which ICT enhance service delivery in John Harris library?

Table 4.5: The extent to which ICT enhance service delivery in John Harris library

S/N	ITEMS	SA	A	D	SD		
1	Laptops computers		5%	60%	35%		
2	World Wide Web	95%	5%				
3	Desktop Computers	40%	60%				
4	CD ROM	3%		87%	10%		
5	Printers	80%	20%				
6	Photocopy Machine	90%	10%				
7	Scanners		20%	50%	30%		
8	Email		10%	70%	20%		

Source: Field survey, 2023

The data presented in table 4.5 above shows the extent to which ICT enhance service delivery in the library. The table shows that the respondents strongly agree that world wide web (95%), printers (80%) and photocopy machine (90%) enhances service delivery in the library. Meanwhile, the table shows that 60 participants constituting (60%) agree that desktop computers enhance service delivery in the library. The table shows that the respondents, laptop computers (60%), CD ROM (87%), Scanners (50%) and Emails (70%) Disagree.

Question 2: What is the level of ICT competencies of library personnel in enhancing service delivery in John Harris library?

Table 4.6: The level of ICT competencies of library personnel in enhancing service delivery in John Harris library

S/N	ITEMS	SA	A	D	SD
9	Digital scanning and uploading	98%	2%		
10	Retrieving document from storage device	90%	10%		
11	Internet surfing / browsing internet skill	99%	1%		
12	Basic computing i.e. word processing	87%	13%		
13	Presentation skill i.e. power point	20 %		50%	30%
14	Storing and copying data into secondary stored devices (Hard Disk)	95%	5%		

Source: Field survey, 2023

Table 4.6 shows the level of ICT competencies of library personnel in enhancing service delivery in the library. The respondents on digital scanning and uploading, retrieving document from storage device, internet surfing/browsing internet skill, basic computing i.e. word processing and storing and copying data into secondary stored device (hard disk) with percentage of 98, 90, 99, 87 and 95 respectively strongly agree that library personnel in enhancing service delivery in the library. Meanwhile, the respondents on presentation skills i.e. PowerPoint (50%) disagree.

Question 3: What is the level of effectiveness of ICT on service delivery in John Harris library?

Table 4.7: The level of effectiveness of ICT on service delivery in John Harris library

S/N	ITEMS	SA	A	D	SD
15	Selective dissemination of information (SDI) is effective	90%	10%		
16	Current awareness service (CAS) is effective		30%	65%	5%
17	E - referencing service is effective	68%	19%	10%	3%
18	Online user education		2%	91%	7%
19	Office operation	97%	3%		

Source: Field survey, 2023

Table 4.7 shows the level of effectiveness of information and communication technology (ICT) in enhancing services in the library. 90% of respondents strongly agree that Selective dissemination of information (SDI) is effective, 65% disagree that current awareness services (CAS) is effective, 68% strongly agree that E- referencing is effective, 91% disagree that online user education is effective and 97% strongly agree that office operation is effective. Majority of the respondents agreed that all the items listed above are effective in enhancing service delivery in John Harris Library, University of Benin with just the exception of Current awareness service (CAS) and online user education.

Question 4: What are the challenges faced in the use of Information and Communication Technology (ICT) on service delivery in John Harris library?

Table 4.8: The challenges faced in the use of Information and Communication Technology (ICT) on service delivery in John Harris library

S/N	ITEMS	SA	A	D	SD
20	Inadequate fund	96%	4%		
21	Lack of IT professional	15%	85%		
22	Lack of training facilities	88%	12%		
23	Lack of ICT equipment	89%	11%		
24	Problem of technophobia	63%	37%		
25	Lack of power supply	92%	8%		
26	Attitude of personnel toward ICTs	79%	21%		

Source: Field survey, 2023

Table 4.8 reveals the respondents' view on the challenges faced in the use of ICT on service delivery in John Harris Library, University of Benin. The following items inadequate fund (96%), lack of IT professionals (85%), lack of training facilities (88%), lack of ICT equipment (89%), problem of technophobia (63%), lack of power supply (92%) and attitude of personnel toward ICT's (79%) strongly agree and agree that all of the items listed above are challenges faced in the use of ICT in libraries.

Question 5: What are the strategies for enhancing the effective use of Information and Communication Technology (ICT) on service delivery in John Harris Library?

Table 4.9: The strategies for enhancing the effective use of Information and Communication Technology (ICT) on service delivery in John Harris Library

S/N	ITEMS	SA	A	D	SD
27	Provision of adequate electricity supply	77%	33%		
28	Training of library staff on ICT	63%	37%		
29	Proper funding	97%	3%		
30	Increase in network bandwidth	48%	52%		
31	Training of library users on ICT	15%	85%		
32	Prompt technical response to software problems	94%	6%		
33	More access to website system	53%	38%	9%	
34	Adequate provision of digital infrastructure	12%	81%	5%	2%
35	Prompt subscription	70%	5%	20%	5%

Source: Field survey, 2023

The table above which is table 4.9 shows the various possible strategies for enhancing the effective use of ICT on service delivery in the library. Provision of adequate electricity supply (77%), training of library staff on ICT (63%), proper funding (97%), increase in network bandwidth(52%), training of library users on ICT (85%), prompt technical response to software problems (94%), more access to websites (53%), Adequate provision of digital infrastructure (81%) and prompt subscription (70%). The respondents strongly agree and agree that the above items are possible strategies for enhancing the effective use of ICT on service delivery in the library

Findings

- i. Respondents strongly agree on the positive impact of the World Wide Web, printers, and photocopy machines, while opinions vary for desktop computers and express disagreement for laptop computers, CD ROMs, scanners, and emails in enhancing service delivery at John Harris Library.
- ii. Library personnel at John Harris Library exhibit strong ICT competencies in digital scanning, retrieving documents, internet browsing, basic computing, and data storage, although there is disagreement among respondents regarding their proficiency in presentation skills, specifically in PowerPoint.
- iii. There is a high level of perceived effectiveness of information and communication technology (ICT) in enhancing services at John Harris Library,

with the majority strongly agreeing on the effectiveness of selective dissemination of information (SDI), E-referencing, and office operations, while expressing disagreement regarding the effectiveness of current awareness services (CAS) and online user education.

- iv. There are significant challenges in the use of Information and Communication Technology (ICT) for service delivery in John Harris Library, with respondents strongly agreeing or agreeing on issues such as inadequate funds, lack of IT professionals, insufficient training facilities, absence of ICT equipment, technophobia, lack of power supply, and personnel attitudes towards ICTs.
- v. Respondents strongly agree or agree on various strategies, including proper funding, training of library staff and users on ICT, provision of adequate electricity supply, prompt technical response, and adequate digital infrastructure, as effective means for enhancing the use of Information and Communication Technology (ICT) on service delivery in John Harris Library.

Discussion of Findings

This section discusses the findings of the study. The findings are discussed drawing reference from author's view in the literature review and relating them to the researcher's point of view based on the result of the findings.

The extent to which ICT enhance service delivery in John Harris library

The data from Table 1 indicates a varied perception among respondents regarding the extent to which ICT enhances service delivery in John Harris Library. Notably, there is strong agreement on the positive impact of certain technologies such as the World Wide Web, printers, and photocopier machines, with high percentages (95%, 80%, and 90%, respectively). However, the agreement diminishes when it comes to desktop computers, with only 60% of participants expressing that they enhance service delivery. On the contrary, respondents tend to disagree on the impact of laptop computers (60%), CD ROM (87%), scanners (50%), and emails (70%) in enhancing service delivery. This suggests a nuanced landscape where specific ICT tools are perceived differently in their contributions to service delivery within the library.

Comparing these findings with Yusuf and Fasae's (2021) study on ICT correlates of service delivery in Ekiti State Universities, Nigeria, both studies acknowledge the importance of ICT in libraries. However, the nuances in perceptions of specific ICT tools align with the notion that the effectiveness of ICT can vary based on the context and the tools in use. Similarly, Adeniran et al.'s (2020) study on ICT applications in academic libraries in Kwara State, Nigeria, emphasizes the significance of adequate ICT resources for transforming information services. The finding that desktop computers have a moderate agreement in enhancing service delivery in John Harris Library aligns with the

broader perspective on the importance of diverse ICT resources in library settings, as indicated in both studies.

The level of ICT competencies of library personnel in enhancing service delivery in John Harris library

Table 2 highlights the perceived level of ICT competencies among library personnel at John Harris Library concerning various tasks related to service delivery. The majority of respondents strongly agree on the competence of library personnel in digital scanning and uploading (98%), retrieving documents from storage devices (90%), internet surfing and browsing skills (99%), as well as basic computing tasks like word processing (87%) and storing/copying data into secondary storage devices (95%). These high percentages indicate a positive perception of the library staff's capabilities in utilizing essential ICT skills for effective service delivery. However, a notable contrast emerges with presentation skills, specifically in PowerPoint, where only 50% of respondents express agreement, suggesting a potential area for improvement in the realm of visual communication.

Comparing these findings with Igere's (2022) study on the impact and barriers to ICT use in John Harris Library, there is a parallel emphasis on the importance of ICT competencies for effective service delivery. Igere's study highlights barriers like

inadequate funding and technophobia, which could be addressed with a focus on enhancing personnel skills. Similarly, Yusuf and Fasae's (2021) research on ICT correlates of service delivery in Ekiti State Universities, Nigeria, emphasizes the significance of librarians developing higher-order thinking skills for proficient use of ICT. The alignment lies in recognizing the essential role of ICT competencies in delivering efficient library services, as echoed in both the present findings and the broader context of these studies.

The level of effectiveness of ICT on service delivery in John Harris library

Table 3 provides insights into the perceived effectiveness of Information and Communication Technology (ICT) in enhancing services at John Harris Library, University of Benin. The majority of respondents express strong agreement on the effectiveness of Selective Dissemination of Information (SDI) and E-referencing, with percentages of 90% and 68%, respectively. Additionally, an overwhelming 97% strongly agree that office operations are effective with the use of ICT. However, there is a notable disagreement concerning the effectiveness of current awareness services (CAS) and online user education, with 65% disagreeing on CAS and 91% disagreeing on online user education. This suggests that while certain ICT tools and processes are widely perceived as effective, there are areas, specifically in current awareness and user education, where improvements may be needed.

Comparing these findings with Yusuf and Fasae's (2021) research on the use of ICT as correlates of service delivery in Ekiti State Universities, Nigeria, both studies emphasize the importance of ICT in delivering effective library services. The alignment lies in recognizing the positive impact of specific ICT tools, such as E-referencing and office operations, in both contexts. However, the discrepancy in the perceived effectiveness of current awareness services and online user education in John Harris Library echoes the nuanced challenges highlighted by Igere (2022) in the barriers to ICT use in the same library, where issues like technophobia and inadequate funding could potentially impact the effectiveness of these services. Therefore, these findings collectively underscore the need for targeted improvements to ensure a comprehensive and effective integration of ICT in library service delivery.

The challenges faced in the use of Information and Communication Technology (ICT) on service delivery in John Harris library

Table 4 provides a clear picture of the challenges faced in the use of Information and Communication Technology (ICT) for service delivery in John Harris Library, University of Benin. The respondents strongly agree that inadequate funding (96%), lack of IT professionals (85%), insufficient training facilities (88%), absence of ICT equipment (89%), technophobia (63%), lack of power supply (92%), and personnel attitudes toward ICTs (79%) are significant challenges. These findings highlight a multitude of obstacles,

including financial constraints, a shortage of skilled personnel, inadequate training resources, technological barriers, and issues related to infrastructure and attitudes, collectively posing substantial hurdles to the effective integration of ICT in library services.

Comparing these challenges with Adeniran et al.'s (2020) study on ICT applications in academic libraries in Kwara State, Nigeria, there is a resonance in the recognition of challenges related to ICT resources. In both studies, inadequate funding and the absence of specific ICT facilities are acknowledged as impediments to the optimal utilization of technology in library settings. Similarly, Yusuf and Fasae's (2021) study on the correlates of service delivery in Ekiti State Universities emphasizes the importance of addressing challenges like inadequate training to enhance the proficiency of library personnel in utilizing ICT. These consistencies underscore the broader systemic issues faced by academic libraries in Nigeria, emphasizing the need for comprehensive strategies to overcome financial, infrastructural, and human resource challenges for effective ICT integration in service delivery.

The strategies for enhancing the effective use of Information and Communication Technology (ICT) on service delivery in John Harris Library

Table 5 outlines key strategies identified by respondents for enhancing the effective use of Information and Communication Technology (ICT) in service delivery at John Harris Library. The participants strongly agree and agree on several crucial measures, including the provision of adequate electricity supply (77%), training of library staff on ICT (63%), ensuring proper funding (97%), addressing network bandwidth limitations (52%), training library users on ICT (85%), prompt technical responses to software problems (94%), improving access to websites (53%), ensuring adequate provision of digital infrastructure (81%), and prompt subscription services (70%). These findings underscore a comprehensive approach to addressing challenges and improving the overall ICT ecosystem within the library, ranging from infrastructure and training to financial support and technical assistance.

In comparison with Ekere et al.'s (2020) research on the utilization of modern technology for service delivery in libraries in South-East Nigeria, there is a resonance in the emphasis on training and infrastructure improvement. Both studies recognize the importance of ongoing staff training to enhance proficiency with current technology. Additionally, the focus on providing adequate ICT resources aligns with Adeniran et al.'s (2020) study on ICT applications in academic libraries in Kwara State, Nigeria, where

having sufficient ICT resources is acknowledged as transformative for information services. These consistencies highlight the universality of strategies needed to enhance the effective use of ICT in libraries, emphasizing the importance of investment in staff training, infrastructure, and overall technological support for optimal service delivery.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter provides the summary of the study, summary of findings, the conclusion, recommendations, limitations of the study and suggestions for further studies.

Summary of the Study

The broad purpose of this study is to investigate the role of information and communication technology (ICT) on service delivery in John Harris Library, University of Benin. It further, ascertain the extent to which ICT enhance service delivery in John Harris Library. It determine the level of ICT competencies of library personnel in enhancing service delivery in John Harris Library. It also determine the level of effectiveness of ICT on service delivery in John Harris Library. It identifies the challenges faced in the use of ICT on service delivery in John Harris Library. And it also determine the strategies for enhancing service delivery in John Harris Library. In all, five research questions guided the study. Literature was reviewed on the concept of ICT, the role of ICT on library service delivery which includes: Library automation, library networking, library management system and technical communication. And finally, literature was reviewed on ICT based user services which includes: online guidelines, information delivery to user's desktops, electronic document delivery services, online public access catalogue services (OPAC) and reader advisory services.

Conclusion

This study delved into the impact of ICT on service delivery in John Harris Library, University of Benin. The findings affirm that tools such as desktop computers, the World Wide Web (WWW), printers, photocopying machines, and emails play a pivotal role in enhancing service delivery. Furthermore, the study concludes that library personnel possess the necessary ICT competencies to improve services. Effective ICT services identified include current awareness services, selective dissemination of information (SDI), and E-referencing. On the flip side, challenges encompass a shortage of IT professionals, power supply issues, inadequate funding, and insufficient training facilities. To tackle these challenges, recommended strategies involve ensuring a stable power supply, training library users and staff on ICT, securing proper funding, and increasing network bandwidth, thereby paving the way for an enhanced use of ICT in service delivery in the library.

Recommendation

Based on the findings of the study, it is clear that there seems to be some level of disparity on the use of ICT to enhance service delivery in John Harris Library, University of Benin. Below are some recommendations to bridge the gap and ensure overall ICT use to enhance library service delivery:

1. Enhance ICT Infrastructure

The school management should Address challenges related to inadequate funding by prioritizing investments in ICT infrastructure.

2. Training Initiatives

The school management should Implement comprehensive training programs for library personnel to enhance their competencies in using ICT tools effectively and also extend training initiatives to library users to foster a broader understanding and utilization of available ICT resources.

3. Optimize ICT Services

The school management should Strengthen and expand effective ICT services like current awareness programs, selective dissemination of information (SDI), and E-referencing to further enhance service delivery.

4. Address Power Supply Challenges

The school management should Explore and implement solutions to tackle power supply issues, ensuring a stable and reliable electrical environment for seamless ICT operations.

5. Network Bandwidth Enhancement

The school management should Increase network bandwidth to optimize internet access, facilitating efficient utilization of online resources and services.

6. Prompt Technical Support

The school Management should Establish a responsive system for prompt technical support to address software problems, ensuring uninterrupted ICT services.

7. Encourage User Participation

The school management should Encourage and promote active participation of library users in ICT training programs to empower them in utilizing available resources effectively.

8. Regular Review and Adjustment

The school management should Periodically review and adjust strategies based on emerging ICT trends and evolving user needs for continual improvement in service delivery.

These recommendations aim to create a roadmap for John Harris Library to capitalize on the strengths identified in the study and address the challenges, ultimately fostering an environment where ICT plays a pivotal role in delivering effective library services.

Limitations of the Study

Unwillingness of the respondents: Some of the respondents were unwilling to complete the questionnaire at a good record time. And respondents with the completed questionnaire were unwilling to return them.

Financial constraint: Insufficient fund tends to impede the efficiency of the researcher in sourcing for the relevant materials, literature or information and in the process of data collection (internet, questionnaire and interview).

Time constraint: The researcher will simultaneously engage in this study with other academic work. This consequently will cut down on the time devoted for the research work.

Suggestions for Further Study

Evaluating the impact of information and communication technology (ICT) on service delivery in Special Libraries.

Positive influence and use of information and communication technology (ICT) on learning and reading habit of Library and information science students in Nigerian universities.

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APPENDIX

UNIVERSITY OF BENIN

FACULTY OF EDUCATION

DEPARTMENT OF EDUCATIONAL MANAGEMENT

QUESTIONNAIRE

**THE ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGY
(ICT) ON SERVICE DELIVERY IN JOHN HARRIS LIBRARY, UNIVERSITY
OF BENIN**

Dear Respondents,

The researcher is a final year undergraduate from the Department of Educational Management in the Faculty of Education, and is Analyzing The role of information and communication technology (ICT) on service delivery in John Harris Library, University of Benin.

Please react carefully and tick the appropriate column for each statement. Your sincere response to the questionnaire will facilitate this research work. All information gathered shall be properly utilized for research purposes and shall be treated with confidentiality.

Thank you.

Yours Sincerely,

Solomon Comfort.

SECTION A: DEMOGRAPHICS AND RESPONDENTS' BIO-DATA

Instruction: please tick [] your most Preferred Choice(s) On A Question.

Gender

Male []. Female []

Age

16-26 []. 27-36 []. 37-46 []. 47 and above []

Status Differentiation

Library Management []. Librarians []. Library Users []. Researchers []

Educational Qualifications

100L []. 200L []. 300L []. 400L []. OND/Diploma []. B.S.C/HND [].

Masters []. PHD []

SA- Strongly Agree, A- Agree, D- Disagree and SD- Strongly Disagree

SECTION B: please tick [] where necessary

Question 1: what is the extent to which ICT enhance service delivery in John Harris Library?

S/N	Item	SA	A	D	S/D
1	Laptop computers				
2	World Wide Web (WWW)				
3	Desktop computer				
4	CD-ROM				
5	Printers				
6	Photocopying machine				

7	Scanners				
8	E-mail				

Question 2: what is the level of ICT competencies of library personnel in enhancing service delivery in John Harris library?

S/N	Item	SA	A	D	SD
9	digital scanning and uploading				
10	Retrieving document from storage device				
11	Internet surfing /browsing internet skills				
12	Basic computing I.e. word processing				
13	Presentation skills I.e. power point				
14	Storing and copying data into secondary stored device(hard disk)				

Question 3: What is the level of effectiveness of ICT on service delivery in John Harris Library?

S/N	Item	SA	A	D	SD
15	Selective dissemination information (SDI) is effective				
16	Current awarenessService(CAS) is effective				
17	E- referencing service is effective				

18	Online user education				
19	office operation				

Question 4: what are the challenges faced in the use of ICT on service delivery in John Harris Library?

S/N	Item	SA	A	D	SD
20	Inadequate fund				
21	Lack of IT Professionals				
22	Lack of training facilities				
23	Lack of ICT equipment				
24	Problem of technophobia				
25	Lack of power supply				
26	Attitude of Personnel towards ICTs				

Question 5: What are the strategies for enhancing the effective use of ICT on service delivery in John Harris Library?

S/N	Item	SA	A	D	SD
27	Provision of adequate electricity supply				
28	Training of Library staff on ICT				
29	Proper funding				
30	Increase in network bandwidth				
31	Training of library users on ICT				

32	Prompt technical response to software problems				
33	More access to websites				
34	Adequate provision of digital infrastructure				
35	Prompt subscription				

