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The Effect of the Emergence of Digital Library Resources on Low Patronage of the Physical Library

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Abstract

This study looks into the relationship between poor use of printed and physical library resources and the rise of digital and electronic resources. For many years, consumers have had access to a plethora of knowledge through printed library materials. As content shifts to digital platforms and internet access becomes more of a human right than a luxury due to technological advancements, the degree of the use and patronage of printed library materials is shifting. The global observation and recognition of the paradigm transition from print to electronic or digital resources is widely established. The idea of modernizing libraries using digital technology has emerged as a result of new technologies and is now set to permeate everyday workplace culture. Digital technology has created a sense of necessity for both professionals and individuals. It has replaced paper-based information resources systems and services with electronic ones, resulting in an explosion of information, solving space issues in traditional libraries, lowering the cost of technology, improving information quality, and saving users' time. The goal is to present a thorough analysis of how printed and electronic resources are now being used. This study examined research findings that physical, printed resources are becoming less handy with the rise of digital information resources. This has created a difficulty that results in poor consumption of printed library resources. One of these issues is that as digital library resources have become more common, researchers and students have a tendency to use electronic resources more than printed ones, which makes traditional materials appear outdated and underutilized. The primary goals of a digital library are as follows, in general. Additionally, some of these potentials and problems are examined in the context of academic libraries in this paper. A cutting-edge technological tool for professionals to acquire the knowledge and new abilities needed to work with digital libraries is the digital library.

Key Words: Digital library; Print resources; Physical library; Electronic resources; Academic library; Patronage.

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INTRODUCTION

A library is a repository for information and knowledge [1] which offers information in addition to information access. A basic goal of every library is to ensure that its resources—books and other printed and non-printed materials—are thoroughly consulted. According to [2], in order to provide services effectively, librarians must stay up to date on the various needs that people have for information and information resources. Libraries have been forced to include electronic resources to their holdings ever since electronic publication first appeared.

Compared to traditional library materials, digital or electronic resources are computer-readable files that take up less space. According to [3], access to and use of electronic resources are limited to computers and/or devices that are intimately tied to them as stated in [2]. A local or remote area network can be used by a person or organization to use and/or access electronic resources through microcomputers, mainframes, mobile phones, and many other devices [4]. Books, journals, and a wealth of other knowledge resources are available electronically these days [2]. It is no longer news, in his words, that the demand for electronic resources is higher than that of traditional, printed library materials. Librarians are required to be the driving force behind the library's continued expansion in order for it to continue expanding and to provide efficient service. In order to stay up to date with the many needs of its customers and keep up with the rapid advancement of technology, they must evolve and grow. The use of electronic resources in libraries started around the world in the 1950s when computers were developed, making it easier to generate and distribute information in the United States and later spreading to Europe and Asia [5]. Libraries and other information institutions are facing difficulties in trying to satisfy the demands of users for information in the digital age due to this trend. Libraries are now making significant investments in electronic resources, particularly in academic libraries where patrons can access a wide range of electronic materials to improve their academic performance. While industrialized countries have noticed this progress, other developing nations are still having difficulty closing the digital divide that is keeping them from reaping the full benefits of the electronic era [6].

Libraries are meant to support their parent institution in achieving its goals; this is especially true of libraries affiliated with universities or other post-secondary educational establishments. It serves as a valuable intellectual resource for the university community and aids in meeting curriculum requirements as well as encouraging study and research. It naturally leads to problem solving, inquiry, teamwork, and active participation in the library. Because students and employees of an institution primarily and nearly exclusively rely on the availability and accessibility of information resources in the library, library patronage by these groups of people becomes crucial. The degree to which library users will visit a library depends on the caliber of the information sources available there. This is so because the library process centers on its patrons, and utilization is crucial to the practice of librarianship. [7] asserts that as patrons are essential to a library's operation, their satisfaction with the services provided must always be maintained.

Libraries' transition to digital libraries is actually more a result of demands for a paradigm shift in higher education than of their adaptation to information technology. These demands include e-learning, which is changing the paradigm of learning, changes in scientific communication that result in e-research, and

the pressing need to establish information literacy in higher education. Digital libraries have emerged as a result of rapid technical advancements in various disciplines, including libraries. Digital libraries are superior to conventional (traditional) libraries in many ways as a source of knowledge and learning resources for academics. Although digital libraries have many benefits, there are a number of challenges associated with their use, including issues with facilities, digitizing collections, copyrights, human resources, and costs. When digital libraries are implemented in libraries, these impediments will subsequently pose difficulties for library management. Nonetheless, digital libraries continue to be indispensable to traditional libraries. Traditional libraries and digital libraries are identical; the only distinction is that the materials are available in digital format. Researchers have noticed that since the advent of digital information resources, physical and printed resources are becoming less handy since researchers and students are using electronic resources more frequently, which makes printed resources appear less useful and redundant. Similar to this, [8] found that most libraries in higher education institutions struggle to explore global information sources; as a result, patronage and appreciation of libraries suffer, and libraries are unable to conduct meaningful research as cited in [9]. Therefore, using a thorough empirical assessment of some related literature, the current study examined how the rise of digital resources affects the use of printed or physical library resources.

2.0 LITERATURE REVIEWS

2.1 Electronic/Digital Library Resources

In the digital age, electronic resources, or "e-" resources, are the digital equivalents of print forms and are an essential component of library collections. These are resources needed for teaching, learning, and/or research that need to be accessed on desktop computers or portable mobile devices like iPads, laptops, and smartphones at home or in libraries. Online and offline databases, e-books, e-journals, e-newspapers, e-research reports, and e-lecture notes are examples of electronic information resources (EIRs). Additional resources include theses and dissertations, indexing and abstracting, and reference databases that include dictionaries, bibliographies, audio, and files [10]. Electronic information resources, according to [11], are information resources that are provided in an electronic format. These resources can be found on the Internet and include, among other things, e-books, e-journals, online databases, CD-ROM databases, and other computer-based electronic networks as cited in [12]. According to [13], who were mentioned in [14], electronic information resources comprise the World Wide Web (WWW), wireless internet connectivity (WIFI), search engines, online indexes, video CDs, VSAT-based internet connectivity, online library catalogue, online databases, portals, e-journals, and e-books. Comparably, electronic resources are described as "materials that require computer access, whether through a personal computer, mainframe, or handheld mobile device" by [15]. Electronic resources are mostly those that need to be accessed by a computer, be it a mainframe, personal computer, or a portable mobile device. They can be viewed locally or remotely over the internet. E-books, e-journals, full-text (aggregated) databases, databases with numbers and statistics, e-images, and e-audio/visual resources are a few of the most commonly found kinds [10]. These materials comprise a growingly significant library collection. In fact, in a continent already rife with digital divides, the introduction of the internet and its subsequent infiltration into African libraries and information centers, including Tanzania's universities, have created the possibility of a digital split. Users' interactions with information have altered in this way as a result of technological advancements and the changing nature

of the information landscape. On the one hand, users now have the option to select between the two mediums, thanks to advancements in information technology.

The main distinction between digital libraries (DL) and traditional libraries is the format of the resources available, which is either digital or electronic. According to [16], as stated in [17], society is moving towards a point where a vast amount of information that is accessible through printed and published resources can replace digital information. As a result, the library's initiatives must be connected to both the past and the present in order to influence the latter through the acquisition, preservation, and exhibition of materials pertaining to human civilization. Sometimes it's necessary to integrate emerging technology into the design of these resources. The digital library of the future must have all of the components of online knowledge recording, worldwide distribution and upkeep of these records, and universal accessibility to all records via the internet in any language and at any time. The idea of a digital library is essential and required. The most recent efforts to digitize libraries are concentrated on building standalone libraries that can take the place of the physical libraries that are currently overcrowded because of both budgetary and spatial constraints.

However, the policy created for contemporary digital libraries ought to be able to reach every household where data accessibility is possible in online digital libraries and museums worldwide.
According to [18], cited by [19], electronic library resources are digital representations of information that can be accessed through computer networks and computerized systems. They further state that these resources include web resources, e-journals, e-books, e-databases, e-serials, and other resources that are accessible from remote locations. Therefore, a digital library (DL) can alternatively be defined as a library where collections are computer-accessible and kept in digital formats rather than print, microform, or other media. According to [20], the content can be accessed remotely or saved locally. Compared to traditional library materials, electronic resources are computer-readable files that take up less space. According to [3], access to and use of electronic resources is restricted to computers and/or devices that are intimately tied to them as stated in [2]. Data, which is information expressed by numbers, text, graphics, photos, maps, moving images, music, sound, and many other forms, makes up electronic resources [2].

2.2 Factors Influencing the Patronage of Digital Resources

Online sales of electronic books are progressively surpassing those of printed books [21]. This suggests that consumers' need for digital resources is rising quickly. Nonetheless, numerous scholars have looked into the current aspects that affect the use of digital resources in order to support this claim.

2.2.1 Time Factor:

Researchers have found that people may readily find the knowledge they need by using digital libraries. In their 2005 study, [22] examined the usage patterns of e-books by Malaysian undergraduate students, with a particular focus on the how, when, where, and why of these resources during case studies. According to the report, people who use e-books find them user-friendly and mostly utilize them for project or writing assignments. Electronic versions of textbooks and reference materials are preferred by the majority of responders. Users can access digital libraries without being limited by time or space,

which makes it simple. Almost identical methods are employed when searching via a computer, as opposed to a human, in digital libraries. The speed at which things happen when utilizing a computer is different. A list of terms can typically be stored in the main memory of the computer and searched in a matter of microseconds. The list of references is retrieved from secondary storage, which is commonly a disc or memory card, when the computer's version of the concordance item grows too big to fit in main memory. This process normally takes a few milliseconds. These days, electronic resources outperform traditional print resources in terms of quick and expedited information transmission. Similar to this, students can quickly access what seems like an infinite amount of knowledge from around the world using the several information resource alternatives that are available [23].

2.2.2 Location and Proximity Factor:

Users of digital libraries can access their contents from anywhere at any time by using cloud storage. If the digital library is web-based, users can access the collection from anywhere at any time using a computer, tablet, or smartphone. Distance, then, does not prevent access to electronic resources. For example, millions of people worldwide had continuous access to reading and study materials during the Covid-19 outbreak in 2020. With the use of ER, library customers could access resources without physically being inside the library by connecting to an intranet, extranet, or internet network. One of the greatest benefits of electronic library resources is the ability to access them from a distance; this allows for remote access to the library's resources [2]. By doing this, it is easier and faster to access library collections. The environment of digital information is now a regular aspect of professional operations. The libraries provide patrons with electronic resources that they can use at any time, from any location, to explore and obtain the knowledge they require [24].

2.2.3 Space Consumption Factor:

Electronic resources demand less space and operational room than a traditional library with a large collection of books and/or bookshelves. [2] discovered that a digital library offers greater area for information storage as well as collections. The managers of the libraries at higher education institutions simply need to supply a few computers or other devices with large storage capacities; otherwise, they can synchronize the collection with any additional data stored in the cloud. This claim was further supported by research conducted by [25], who found that 84% (n=146) of students at Ghana's Coastal University preferred and agreed that softcopies are convenient and portable. Additionally, [26] concurred that digital resources don't take up any physical space in his study on digital or printed resources regarding a Guide for School Libraries. He claims that libraries can "stock" a vast array of digital resources while maintaining room on the shelves for books, journals, and other materials. It's even better when students have access to these materials at all times and from any location. They don't even need to be in school or go to the library.

2.2.4 Preservation and Safety Factor:

Scholars reached a consensus that the quality of digital resource collections surpasses that of printed collections. There is a timeless aspect to the collection. Users cannot destroy digital collections

throughout the lending period, which often ends with printed collections. Not only are the printed collections preserved, but also the digital collections themselves. Digitization can be used to convert printed collections into digital format. Old collections can be preserved by digitization, allowing them to be stored in a digital repository before they become unreadable. The process of digitization itself has the potential to improve book collection writing. A vast range of material, including e-books, periodicals, articles, blogs, papers, films, podcasts, and audiobooks, are kept in virtual libraries. So that their users can access their resources from anywhere at any time, they should keep them on the cloud.

2.2.5 Speed and Quick Access:

It takes significantly less time to browse or search an electronic resource, extract information from it, incorporate it into other content, and conduct cross-searches or references across the various publications. According to [26], using a digital resource is typically far faster than looking up information online or turning pages in a book. Effective digital research techniques are a necessary precondition, though. In a matter of seconds, the search feature will provide results along with a relevancy score when you enter a keyword. In digital works, you can access additional helpful sources of information by clicking on hyperlinks within the text. This function is not available in books, regardless of how thorough their bibliography or extensive their footnotes are. Compared to traditional library resources, electronic resources can be accessed much more quickly. To expedite content searches, numerous DLs make use of well-known search engines like Google, Bing, and Yahoo. Readers are therefore able to swiftly get the information they require. Some electronic library resources enable users to quickly search a specific material for a key phrase or keyword with an answer, in addition to providing remote access.

2.2.6 Content Factor:

Physical space limitations force the DL to store a vast array of content. A vast amount of information may be found in e-resources, but what's more, the content may include mixed media, such as photos, videos, and audio animations, which cannot be replicated in print. [26] further clarified that in addition to text, digital resources may include a variety of media, including pictures, audio, videos, and animations. In addition to other helpful resources like a word look-up and citation tool, they might also provide translation and read-aloud capabilities. However, printed resources are limited to text and photos alone.

2.2.7 Multi-access Factor:

The electronic resources are available for simultaneous use by several readers. [2] corroborated this claim by stating that numerous users can simultaneously access a given electronic library resource if the required software and connectivity are in place. Many users can utilize a particular electronic resource in succession without having to wait in queue. [26] similarly demonstrated how each student in the classroom can use a digital resource at the same time. They are constantly available since there are an infinite number of "copies" of them, unlike physical books. In a similar vein, [27] noted in their research

that one benefit of electronic resources over print is that instructors can access and use the same materials simultaneously online from anywhere in the world without having to visit the library in person.

2.2.8 Currency Factor:

Since electronic resources are updated often, they contain up-to-date information. In a similar vein, [26] defined a good digital resource as being current. It's critical to stay current with emergency response in a world that is changing quickly with new discoveries, technologies, and events occurring constantly. A digital work may easily include new information as they become available, unlike printed reference works that are fixed at the period of creation. For example, the discovery of a new species of orangutan in November 2017, the death of Stephen Hawking in March 2018, and the revised timeline for the emergence of Homo sapiens, which is now 300,000 years ago (https://jcsonlineresources.org/blog/digital-or-printedresources-a-guide-for-school-libraries/).

2.2.9 The Economic Factor:

[26] noted that digital resources have a number of advantages over print when it comes to learning and reference materials. In general, it's more affordable, more convenient, or even free. Many of us use Google to get precise answers to our questions, or Wikipedia, for example, when looking for in-depth details on a certain subject. For this reason, thousands of free web resources are actually available. We have all been accustomed to having an extensive reference collection on our smartphones and have come to take it for granted.

2.2.10 Job Simplicity Factor:

The development of electronic library materials has been extremely beneficial to librarians in providing library services. When compared to managing, processing, and maintaining traditional library resources— such as the online public access catalogue (OPAC), the electronic cataloguing system (Koha library software), online reference services, and a plethora of other resources—it makes providing library services less taxing [2].

3.0 FACTORS THAT MITIGATE THE USAGE OF DIGITAL RESOURCES

It appears that there are several imposing variables that can neutralize or restrict the effective use of digital library resources, even with the enormous increase in patronage of digital resources in most libraries, as explored and validated by some researches. Among these are a few of these elements:

3.1 Material Cost

In his research, [2] found that libraries are now faced with the difficulty of obtaining the sophisticated materials required to access and use the electronic library resources that have emerged. The expense of purchasing this collection of items is actually an issue that library administration needs to take care of.

Out of the ten (10) Nigerian institutions studied, [28] reported in his study that 8:80% provided fee-based Internet access, while only 2:20% was available for free as referenced by [29]. Since the majority of the services currently given with print services are free, this adds another level of service to academic libraries.

3.2 Lack of Standard Formats for e-Books or Lack of Accurate and Authenticated Materials:

One could argue that access to and storage of printed materials are free of charge because the initial cost of acquisition is not borne by the users, but the same cannot be true for e-library resources. Research has indicated that people are becoming more and more dependent on the internet to conduct research on a variety of topics, from health to current events. In academic libraries, where users need reliable information to bolster claims, teaching, or research, the internet's biggest advantage paradoxically turns into one of its worst drawbacks. Many free online resources are not regularly reviewed, edited, or verified for veracity before or after publication, in contrast to the majority of printed resources. Inaccurate reporting of content information, including titles, dates, and currency, can occur even with fee-based electronic resources. Print materials can also be mutilated or defaced, although in these cases, the copy that the particular library has is damaged; the original text remains unaltered. With electronic resources, the original document can be altered just as readily as a copy, with no record of the modification's date, author, or purpose. When print materials are destroyed, a single volume from a collection is lost, but when an electronic resource is destroyed, the original document is corrupted, making it difficult for future generations to verify or retrieve the document. [30] added to this assertion. They Opined that:

> *Experts in the field do not always post the content to the internet, and pundits are not the only ones who do so. They claim that there are 7 billion people on the planet, the most of whom have access to the internet, and they are constantly adding content to the internet; as a result, not all of the information is checked before being uploaded. Hence, influencing the information's veracity and correctness. It is a fact that people are posting material to the internet on a daily basis. Millions of people worldwide will hear about this knowledge, and they will assume it to be accurate. The information we get from online sources isn't necessarily accurate. However, the printed information has been kept by libraries for decades in order to benefit humanity, which is real and authentic.*

3.3 Availability and Credibility:

The idea that all knowledge can be found online, for free or via a paid service, is a prevalent misconception. As mentioned in [2] , [4] states that not everything that is published electronically is reliable enough to be added to a library's collection. Even with the great advancements in digitalization and electronic publication, most published items worldwide are still only available in physical media (print or microform). E-publishing hasn't rendered the printed book obsolete, even in these technologically advanced times. In actuality, print publishers produced more in 2003 than in prior years, and the majority of those publications were not available in electronic format. These figures show that libraries that want to help their users need to keep looking through, assessing, and gathering print items.

After surviving centuries of human and technological interference, the process and outcome of physical printing are well known. There aren't many unknowns when it comes to the standards to be followed in publishing, user control over the printed form, or the printing or acquisition procedures. In contrast, access to digital documents is uncertain due to the transient nature of technology. First off, all websites—even those that charge for access—allow material to be added or removed without the users' permission. Such flexibility is required to maintain current information, but it also makes it easier for important data to be removed without warning.

Second, the difficulties presented by internet data to courts and legislators remain unresolved, especially with regard to intellectual property law. They have the authority to change users' present and future rights over digital information when making decisions. Moreover, there are no universally recognized and applied standards for electronic documents. Multiple proprietary and open access formats are developed, maintained, and made available to users in the absence of standardization. The absence of a standard will hinder accessibility and make switching to new formats difficult as technology advances.

3.4 Health Hazards:

There seem to be certain issues with the use of softcopies related to the radiations from the light-emitting displays, notwithstanding the benefits of softcopies that have led some to choose them over printed documents. According to reports, users of light-emitting readers may experience sleep disturbances as a result of artificial light exposure, which could have adverse effects on their health [21]. Furthermore, prolonged exposure to strong light rays from electronic device screens can cause visual fatigue, which manifests as burning, itchy, and fatigued eyes. It has been reported that e-book reading prior to bedtime decreased melatonin production, which is a hormone that helps the body get ready for sleep [31]. [31] also observed that the next day's alertness was compromised by e-books. This claim was further supported by research conducted by [25], who reported that students at Ghana's Coastal University agreed that they

would prefer hardcopies over e-copies because there is no eye strain with hardcopies, unlike with digital copies, where prolonged use of electronic devices could pose health risks. This result also supported the findings of [31], who confirmed that extended use of e-books may result in sleeplessness. This opinion was furthered by [21], who found that light from electronic devices may result in tiredness, burning eyes, and difficulty falling asleep. Thus, [21] concluded in their research that even though University of Cape Coast students use electronic versions of books and course materials, they still prefer using paper materials when studying for their classes on campus.

3.5 Erratic Power Supply:

[32] noted that irregular energy supply has an impact on how information resources are used in university libraries. Undergraduates' use of the library's electronic resources is severely hampered by irregular power supplies as cited in [33]. Most people encounter this in impoverished nations like Nigeria. Since using a computer or similar device to access electronic library resources presents a challenge, librarians must make sure the library has a steady supply of electricity to support both access to and use of electronic resources.

4.0 PRINTED OR PHYSICAL LIBRARY RESOURCES

Up until the 1970s, print resources were more widely used and the primary source of knowledge for academic purposes. However, during that time, electronic resources also gained prominence [29]. The concept of a digital-oriented library environment emerged with the advent of digital technologies in the 21st century. This type of environment allows for the conversion of various print-based materials, including books and articles, to digital formats like e-books, PDFs, and multimedia files. These formats can then be stored on digital devices or uploaded online for convenient access by users [34]. [35] defines library resources as assets held by a library that help it achieve the purposes for which it was established. For example, in university libraries, the most common types of library resources are printed materials such as books, periodicals, journals, magazines, textbooks, government publications, thesis and dissertations, government publications, research and technical reports, encyclopedias, manuscripts, publications of information organizations, etc. The libraries also contain non-printed resources such as microforms, audiovisual materials, and other machine-readable elements. Success is sometimes gauged by how satisfied library patrons are with the university library's provision of the aforementioned information resources. According to [36], the introduction of information and communication technology (ICT) has resulted in drastic changes in the accessibility and dissemination of information. Learning and the library system have undergone significant changes as a result of the explosion of information management and the speed at which science and technology are developing. The role of libraries as knowledge gathering spaces has changed with the introduction of digital libraries.

Print resources are information assets that resemble traditional information resources, such as print books and print periodicals, according to [37] , [38]. According to this definition, printed materials are traditional reading materials. According to [39], print resources are educational materials that are printed

on paper. They claim that these kinds of materials are also referred to as traditional-based reading resources.

4.1 Factors Influencing the Patronage of Physical Resources

Despite the widespread usage of digital gadgets, many people still prefer to read physical books even though they are accustomed to using laptops, tablets, e-readers, and smartphones. In collaborating with this assertion, [40] proved that print information resources continue to offer academic library users helpful assistance, even in the face of the growing need for electronic resources and services. Additionally, even though the material was provided electronically, some library users appeared to have greater confidence in the institution's library's information services. It was also contended that print information resources in academic libraries will always be supplanted by electronic resources in the future.

There are solid scientific justifications for why it's preferable to read a printed textbook as opposed to an electronic one.

4.1.1 They Are Better for Health Purposes

It is not a good idea to use a digital book to study for an exam or do research before bed. Harvard researchers discovered that using electronic devices right before bed increases the amount of time it takes to fall asleep, messes with the circadian rhythm, the hormone that promotes sleep, melatonin, and decreases morning alertness [21, 31]. Using light-emitting gadgets right before bed increases alertness, which makes it difficult to fall asleep. This circumstance eventually results in a chronic lack of enough sleep, which raises major health concerns. Chronic sleep deprivation raises the risk of cancer, metabolic disorders like diabetes and obesity, and cardiovascular disease. While it's normal to study till the wee hours of the morning, it's preferable to study with your textbook in bed as opposed to using a screen to get ready for the test.

4.1.2 Reading for Comprehension is Better with Textbooks

Print over digital is better for studying when you need to understand and retain what you've read. According to studies, reading from a printed book improves comprehension more than reading from a digital source like a computer or tablet. Digital books are difficult for most individuals to recall. For example, [41] reported an experiment in Norway where participants were given a short tale to read in a paperback book or on a kindle. When they were later tested, the experiment's findings showed that, compared to those who used the electronic material, those who read the hardcopy material had a higher memory for the plot points in the correct sequence as stated by [25]. In a similar vein, [42] looked into a few related topics regarding students' preferences for print and digital resources. When asked which they would prefer—an electronic textbook or a printed textbook—the majority of respondents (57.4%) said they would go with a printed copy of the textbook for class. Less than 25% said they would pick an electronic textbook, and less than 18% said they had no preference. Out of the 109 students who said

they would pick a printed textbook, 45% of the respondents said that one of the main reasons they would rather use printed resources over digital ones is that they find it easier to highlight and take notes in printed textbooks. This outcome is consistent with the study conducted by [43]. During their inquiry, the respondents explained that print materials let them simply refer back to or across notes and readings, scribble in the margins, and underline or highlight significant information. This practice is frequently associated with feelings of enhanced memory and cognition. Additionally, many mentioned having trouble understanding what they were reading on a screen. They claimed to have more memory, be less easily distracted, and be able to understand and assimilate more information from text.

4.1.3 Lack of Distraction

Findings showed that while print textbooks helped readers focus during their studies, electronic textbooks distracted some readers. Additionally, from [42], who looked into correspondents' preferences regarding students' use of digital and print resources. According to some of the respondents, reading a printed textbook is less distracting than reading a book on a computer. For this reason, they prefer print resources. According to [44] analysis, the primary challenge faced when reading on a digital device is the appearance of distractions that obstruct the reading experience. Pings and rings from emails or messages, pop-up ads, TikTok updates, and even links and boxes that are supposed to deepen your comprehension can all be problematic [45]. Any of these can easily impair focus. Certain things can prove to be a distraction from what you're reading, even if they're intended to be useful. However, there is no feeling of this kind when reading printed materials.

4.1.4 Textbooks Are Not So Hard on the Eyes

Because printed text is easier on the eyes than electronic text, a lot of people, including students, prefer paper books to e-readers [25]. The eyes can become tired and strained from reading in front of a backlit screen. The term "visual fatigue" describes the physical aches and pains brought on by extended use of digital screens. Dry or wet eyes, impaired vision, trouble focusing, painful neck and/or shoulders, and light sensitivity are some of the symptoms. According to research by [43], participants in their studies said they preferred print to electronic reading since it relieved their headaches, back discomfort, eyestrain, and sleep deprivation. Nonetheless, the responders value the tactile, material quality of printed copy and, in certain situations, associate it with understanding and recall.

4.1.5 Textbooks Are Still Preferred by Students

The majority of college students still find it preferable to read a physical book in their hands as opposed to glancing at a screen. According to student surveys, they enjoy the tactile experience of reading a book— which isn't possible with digital books—as well as the smell of the pages turning and taking notes in the margins [42]. Despite the ease of use of e-books, textbooks remain the preferred study medium at present moment. Research indicates that students learn more effectively when they use real books for their studies as opposed to screens. For example, [25] found that although students at a Ghanaian coastal university use electronic versions of books and course materials, they still prefer to use

printed materials when studying for their classes on campus. This was based on their investigation into the preferences and use of digital and printed copies of learning resources by students at the university. As a result, not only do print resources still predominate in scholarly publications, but there are also inherent risks for researchers and university libraries in the fast evolving technology world.

4.1.6 Permanence and Completeness

A lot of electronic documents are transient and short-lived. They may completely vanish or develop link rot, a less serious problem. For a variety of reasons, including the publisher's wish to keep the database up to date, their reluctance in keeping a resource that isn't used much, or their fear of legal action, they may be removed from databases. This claim was made by [46] in their research, which showed that undergraduate students at Central University, numbering 134 (57%) of the respondents, consistently preferred print resource formats for their academic work, while 101 (43%) occasionally preferred electronic resource formats. This suggests that undergraduate students at Central University have a significant need for print resource formats.

4.2 Factors that Mitigate Against the Patronage of Physical Resources

Mohammed [40] maintained that the introduction of electronic information resources, services, and use was a significant turning point and challenge to print resources, services, and use, despite the observation of some scholars that printed resources were the most popular and primarily in use by some researchers prior to the emergence of digital resources. It was for this reason that library patrons were able to identify certain characteristics that restrict and lessen the use of printed resources. The following are a few of these factors:

4.2.1 Print Materials Are Limited and Exclusive in Use

Limit the use of any specific volume to one user at a time since print texts are physical entities. [46] provided evidence for this claim in his study, arguing that print materials are restricted to a particular library. One person at a time can only read a print resource unless the library has several copies of it. On the other hand, numerous libraries may have simultaneous access to electronic resources, allowing multiple individuals to use them simultaneously. Digital papers never run out of use because they may be duplicated many times and distributed concurrently to recipients anywhere in the world. Consequently, understocking or limited print runs associated with the distribution of printed texts are avoided by digital transmission.

4.2.2 Space Factor

Any physical container, including books, takes up space. Data also need space, although compared to physical formats, the amount of space required is very minimal. A virtual library is envisioned as being exceptionally portable via devices like laptops, USB memory keys, and handhelds, while traditional libraries are difficult to transport from one place to another. Despite the fact that the data might not be in

the most convenient or widely used format, it is nonetheless downloadable, transportable, and available to several devices. The device's memory capacity is the only source of limitation.

5.0 FREQUENCY OF PATRONAGE OF DIGITAL AND PHYSICAL RESOURCES

In a research by [47], 400 undergraduate students at the University of California, San Francisco, were given an online questionnaire to explore their preferences for print or electronic formats when looking for their academic readings. According to the study, when it comes to achieving deeper learning outcomes, 67.7% of the respondents favored print over electronic format for all courses, while 32.3% preferred electronic resources. The findings showed that even with the advent of electronic resources, printed materials remained the foundation of scholarly research. Nevertheless, since the majority of study participants were undergraduates, it's possible that the findings cannot be applied to other user categories. All user groups with various academic backgrounds participated in the current study [48]. In their study, [49] polled 101 students about their use of online resources. It was discovered that several participants preferred printed information sources such books, magazines, dictionaries, encyclopedias, yearbooks, and directories. This demonstrated unequivocally that pupils continued to find value in and use printed knowledge materials. Print materials were "still in use because of portability value, and relative ease of access and use," according to [50] study. These traditional library resources enhanced the collection and reference services while continuing to facilitate learning. Alongside this assertion, [51] found that while the mean score for respondents using printed textbooks was slightly higher, several studies suggest no significant difference in academic attainment when studies compare print textbooks verses electronic versions. The investigation was conducted by undergraduate students at the University of Fort Hare and Nelson Mandela University in the Eastern Cape Province of South Africa. The focus group session's outcome also shows that the majority of participants still favour printed information sources over electronic ones. One focus group participant mentioned that print is their preferred medium for information because "you can highlight, and it is handier" (Student Focus Group Discussion, February 2016). The preference of respondents for digital and printed materials was examined by [52] in their work,
"Preferences and use of digital and/or printed copies of learning resources by students of a Coastal University in Ghana". According to their findings, of the total number of students who read for some time, the majority (71%, n=129) favoured reading from hardcopies or printed copies, while the remaining 30% (n=54) preferred reading from softcopies. This shows that the majority of respondents would rather study from hard copies.

According to a different survey conducted by [49], undergraduate students were satisfied with CD-ROM, internet, and online resources. The researchers came to the conclusion that use inconveniences and a lack of awareness could be the cause of the display of satisfaction. From a different angle, [53] also examined how undergraduate students used electronic resources and discovered that doing so had a favourable effect on their academic achievement. He stated that accessing electronic resources was intended for study, current awareness, assignments, emails, news, and information. This demonstrated

that respondents viewed electronic information resources favourably (as reported in [29]. [54] discovered in another study that the majority of respondents favoured electronic resources due to their portability, convenience, accessibility, and time-saving nature.

In a dissenting opinion, [48] found that, of respondents in his study carried out at Tanzania University libraries, 211 (65.7%) said they would continue to consult traditional library resources despite the availability of digital library resources, while 97 (30.2%) said they would not and 13 (4%), who were noncommittal. The outcome demonstrates that people still trust traditional libraries and would use them as sources of information even in the face of internet information availability. Even in the ICT era, the traditional library would assist academic efforts, demonstrating the importance of hybrid academic libraries. It is true that the internet availability of information has not eradicated the traditional library culture, which is deeply ingrained in the practice of using libraries for study and education. Consistent with the aforementioned investigation, [54] discovered that the majority of participants in their study "Use of electronic and print resources among Lecturers in two private Universities in South-South Nigeria" primarily utilized both print and electronic resources. This suggests that because print and electronic resources complement one other, most responders get the knowledge they need by combining the two. According to them, some users may choose to use print materials, while others may prefer electronic resources, and still others may prefer a combination of both. This study is in line with the findings of [55]. This indicates that most respondents got the knowledge they needed by combining print and electronic media.

Mizracshi *et al*. [56] looked at the Academic Reading Format International Study (ARFIS), which involved students from all around the world, in a different study. 9,279 undergraduate and graduate students from 19 different countries on four continents responded to the survey. Approximately two-thirds of the students indicated significant preferences for print over electronic materials, according to the combined results for both student levels, which show a general preference for print.

6.0 CONCLUSION

One size doesn’t fit all circumstances. However, experts advise holding onto your books for the time being. Consumers want a hybrid information environment, where print information is supplemented by online information rather than replacing it, giving them additional options for access. Both traditional and digital libraries meet users' information demands in different ways, and each has specific benefits and drawbacks. Each fulfils the needs of people in a unique way and has a distinct significant role. There are many new access options available through digital libraries that are not available through printed resources. The results of this study have demonstrated that, in spite of the advantages that softcopies have over printed materials, there may be certain health risks connected to using ERs due to radiation from light source screens. Because printed text is easier on the eyes than electronic resources, paper books are preferred by many students and people in general. Comparably, a single person can only read a print resource at a time, whereas several people worldwide can access electronic resources concurrently and consecutively at the same time. Additionally, this research showed that users are more

likely to use digital resources than printed ones. According to the findings, users are also more likely to use digital resources because they are faster to browse than printed resources, which need users to turn pages of a book. On the other hand, this review also revealed that when using printed materials as opposed to digital ones, users are less distracted and are able to understand and retain more information. As a result, the two information resources complement one another and cannot be completely replaced.

LIST OF ABBREVIATIONS

DL Digital library e-Electronics
EIR Electronic information resources
ER Electronics resources
ICT Information and communication technology
OPAC Online public access catalogue WWW World wide web

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