

**Information Retrieval Skills, Digital Competencies and Use of Online Legal  
Information Resources by Legal Practitioners in Ogun State, Nigeria**

**Bukunola Funmi SANNI  
LCU/PG/002550**

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Lead City University, Ibadan,  
Oyo State, Nigeria.**

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**Certification**

This is to certify that this thesis was carried out by **Bukunola Funmi SANNI** with Matriculation Number **LCU/PG/002550**, a student in the Department of Information Management under my supervision in the Faculty of Communication and Information Science, Lead City University, Ibadan, Nigeria.

.....

**Dr. Sunday Tunmibi**  
**Supervisor**

.....

Date

.....

**Dr. Sophia V. Adeyeye**  
**Head of Department**

.....

Date

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### **Dedication**

This thesis is dedicated to the Sovereign, the one who gives fulfilment for His grace and mercies upon my life.

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## Abstract

In today's digital age, lawyers heavily depend on online legal information resources to enhance legal research and support legal activities. However, it has been observed that many legal practitioners lack effective information retrieval skills and digital competences to efficiently navigate and extract relevant information through these information resources. This study therefore examined the influence of information retrieval skills and digital competences on the use of online legal resources among legal practitioners in Ogun state. The study adopted a survey research method. The study population consist of 699 legal practitioners drawn from all the five branches of Nigeria Bar Association in Ogun State. The sample size was determined using Krejcie and Morgan table which resulted in a sample of 242. Data was collected using questionnaire. The data collected was analysed using both descriptive and inferential statistics. The study found that the level of use of online legal information resources (mean=2.63) information retrieval skills (mean = 2.56) and digital competences (mean=2.72) is moderately high among the respondents. The test of hypothesis showed that information retrieval ( $\text{Adj.R}^2 = 0.528$   $p = 0.000$ ) and digital competences ( $\text{Adj.R}^2=0.528$ ,  $p=0.000$ ) both have significant influence on the use of online legal information resources. However, multiple regression analysis showed that while information retrieval ( $p=0.013$ ) has a significant combined influence on the use of online legal information resources on the respondents, digital competences ( $p=0.176$ ) do not have. The study concluded that the use of use of online legal resources by legal practitioners will provide extensive access to legal materials which will in turn promote quick dispensation of justice and enhance productivity. It therefore recommended the need for comprehensive training programs and continuing education by the law libraries and the judiciary to enhance lawyers' information retrieval skills and digital competences.

**Keywords:** Legal practitioners, Information retrieval skills, Digital competences, Legal information

**Word Count:** 294

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## **Chapter One**

### **Introduction**

#### **1.1 Background to the Study**

The use of online legal information resources is highly important for legal practitioners as provide them with unlimited information resources needed for legal research. The technology revolution sweeping across the world is also affecting the legal profession with information resources that were previously in print now appearing in electronic format through various databases such as LexiNexis, Westlaw, HeinOnline, Law Pavillion and several others. All of these resources have been created to facilitate easy access to the needed legal resources for legal practitioners.

Legal practitioners include lawyers, magistrates and judges who play active role in interpreting the law of the land and ensure that everyone' s rights are upheld and offenders are punished according to the dictates of the law and accordance with their offenses. A key issue in the legal profession is that all cases must be proven 'beyond reasonable doubt'. This means that a lawyers who wishes to win a case must provide an impeccable argument backed by legal fact and supported by legal precedence<sup>1</sup>. As a result of this, research is an integral aspect of the job of legal practitioners. They have to go through volumes of legal materials to find appropriate laws and statutes, useful arguments and precedence that can help their cases. In the fast pace world in which we now live, online information resources have come to solve the challenges inherent in the use of physical law resources. It is therefore expected that legal practitioners would make use of the online resources to effectively discharge their duties.

The use of electronic information resources is commonplace among legal practitioners around the world, especially in Europe and North America. Lawyers' information work can be difficult, requiring them to find and process numerous types of data. Digital libraries which include organised repositories of information and knowledge spanning general and law-specific internet search engines and legal citator tools are now common ways that legal practitioners find this information. However, it was reported that Lawyers typically lack solid information search skills which often makes it difficult for them to use available resources such LexisNexis Butterworths and Westlaw. There is a need for sophisticated tools to help lawyers navigate the vast amounts of information included in these resources<sup>2,3</sup>.

African lawyers were also reported to make use of electronic legal resources. Study shows that four in five lawyers in Swaziland make use of online databases to retrieve legal information resources. However, it was found that many libraries in the country often fail to provide access to electronic legal information which often make the use of these resources difficult for the lawyers<sup>4</sup>. In the same vein researchers in Zambia reported that 79 percent of the legal practitioners in the country used online databases while 76 percent use offline databases containing electronic information resources<sup>5</sup>. This indicates that the use of electronic information resources is common among African countries. The use of electronic legal resources has also been reported among legal practitioners in Nigeria.

Nigerian legal practitioners were reportedly aware of a wide range of electronic legal information resources such as online newspapers, electronic law report and electronic journals, Law Pavilion database, government websites, Westlaw database and Lexis Nexis. Majority of the were also aware of online gazettes, electronic indexes, Web's legal dictionary, electronic case citation and Law Breed database and about 53.1%

were aware of Quick law. The legal practitioners were not only aware of these resources, they also make use of them to meet various needs such as preparing legal briefs, making legal research and self-development among others<sup>6</sup>.

The use of online legal information resources by legal practitioners can therefore be measured by their perceived ease of use and perceived usefulness of these resources.

Perceived ease of use and perceived usefulness are validated predictors of the use of information resources. It means that legal practitioners would frequently make use of available online resources anytime they have some information needs if they find them easy to use<sup>7</sup>. When information users, including legal practitioners approach information systems, they expect to find the information they need without much stress. Therefore, they are more likely to frequently use sources where they find it easy to retrieve the needed information. There is anecdotal evidence to suggest that Nigerian legal practitioners are still attached to printed resources that they find it difficult to shift to the use of online legal information resources<sup>8</sup>. This indicates a negative perception of ease of use.

Perceived ease of use is as important as perceived usefulness. This means that electronic legal information must be seen as useful before they are used for various purposes. Legal practitioners have been reported to need information for various purposes which include the preparation of legal briefs, contracts and wills and other documents. They also need information for legal research, preparing for various court appearances, updates on the legal profession and the general trends in the larger society which they must understand in order to function effectively as legal practitioners<sup>9</sup>. It is expected that legal practitioners would access the information system for usefulness and also rely on the feedback of those who have used similar resource to be convinced of using online resources. Librarians and other information

services provider are therefore interested in the purpose to which legal practitioners make use of online resources. This is to help them provide the type of resource that legal practitioners would perceive as useful.

In some cases, it has been reported that the legal practitioners rarely use electronic information resources for sensitive tasks such as writing briefs and drawing contracts. This interest in the purpose of use is strategic for information services providers<sup>4,5</sup>. When legal practitioners are using the online resources for their core tasks, it passes the message that they found the resources relevant to their needs. The opposite is also true when they are not making use of the available online resources. Given the various advantages that have been attributed to the use of online information resources, it is expected that legal practitioners would make frequent use of the resources for various purposes, especially in the context of their professional pursuits. However, the reverse seems to be the case. The low level of use among legal practitioners could be due to information retrieval skills and digital literacy skill<sup>10</sup>.

Information retrieval skill is the ability to efficiently browse, identify and retrieve necessary literature using manual or computerized methods, in order to meet specific information needs. The phrase 'information retrieval skill' is a product of the digital age as it is a skill closely attached to the use of technology. It refers to the technical abilities and knowledge needed by information users to utilize information retrieval technologies to locate relevant resources and separate them from those that are unnecessary. Retrieving information from many sources is referred to as information retrieval<sup>11</sup>.

As a result, legal practitioners should be familiar with how to determine whether or not the information they get on the internet is of any use to them. The efficiency of legal practitioners and the level of productivity will be enhanced if they have access to

comprehensive, effective, and up-to-date information retrieval abilities<sup>12</sup>. Scholars emphasized the significance of information retrieval abilities for legal practitioners, saying that they are the stepping stones of legal research activities. It is thus critical for all legal practitioners, to become well-versed in information retrieval techniques in order to make the most of available research resources.

In tertiary institutions, librarians often offer user education, library orientations, seminars, lectures, workshops to develop the information retrieval ability of their clients, but this is not always available to other user groups such as legal practitioners<sup>13</sup>. The degree to which legal practitioners are proficient in using the various information retrieval tools available in the library has an impact on the volume and quality of information retrieved by the end user after doing an information or literary search<sup>14</sup>. However, information retrieval skill in the digital era is a complex set of competences and cognitive abilities that must be combined together in order to successfully navigate the ocean of online information resources.

Information retrieval skill in the online environment is a combination of various skills and practices such as; searching, chaining, browsing, accessing, gathering, and organizing of retrieved information<sup>15</sup>. Searching is the process where an individual goes about searching for information, which is a process that requires the information seeker to apply personal knowledge, skill or personal information infrastructure to solve a problem. Searching is the most recognized aspects of information retrieval and to which many are familiar and which they often term 'information retrieval'. In reality, searching is the basic step in information retrieval.

Researchers suggest that information retrieval skills depend on user education, access to a library, and the length of time devoted to seeking information by the user. Legal practitioners are expected to use their knowledge to move from searching to chaining.

This is the process of building on already found information resources to find more relevant ones<sup>16</sup>. This method is effective with highly relevant articles. Skilled information users obtained a wealth of information resources on a given subject by reviewing the bibliography of a relevant article to locate preceding works to read and cite. Researchers can do backward chaining through the references in an existing work or forward chaining through the works that have cited the work under consideration. Other constructs of information retrieval skills are; browsing, accessing, gathering, and organizing of retrieved information

Browsing is an important and commonly practiced information retrieval strategy. Browsing is basically a causal exploration of available information with the expectation of 'stumbling' on something useful. For the searcher going through a collection of gathered or available information, browsing is more open-ended than guided searching or chaining. Browsing has become even more relevant in the digital age with the web having a significant influence on what and how researchers explore, as well as the speed at which they may navigate through online resources from several sources. Another element of information retrieval process is accessing

Access comes after the needed information have been "discovered" either, through direct search or browsing or chaining. Once they see the information need, researchers want immediate access to the items. The next stage is to access that material. However, those with the required skills to access the materials often show more level of independence than others and they are also able to retrieve more relevant information than others. Scholars across a wide range of disciplines have taken to use of the ease and efficiency of full-text digital library information when it is accessible<sup>14</sup>,<sup>15</sup>. Accessibility is important as it determines the ability of the researcher to collect the information resources. Apart from information retrieval skills, digital literacy can also

affect the use of online legal information resources among lawyers. for those who can access the information resources, the also need skills for information gathering

The whole essence of the information retrieval process is to build personal collections that will remain easily accessible to the researcher over the long term. This is done through information gathering<sup>14</sup>. Researchers are often seen as collector and, despite the ubiquity of online resources, they crave convenience and assurance that the information resources they found useful will remain accessible to support sustained consultation for the present and future information needs. Researchers have confirmed that scholars in all fields of human endeavor are used to keeping personal collections consisting mostly of printed books and journals. Each scholar will develop a collection based on their disciplines and the works they are currently involved in. There is a difference between information gathering in the printed era and the digital information era

While researcher gather collection during the printed era, through published works, complimentary copies of books and journals and through direct, purchase, things are different in the online environment<sup>15</sup>. With the advent of online information resources, the gathering process is different<sup>17</sup>. It requires downloading electronic version of books, journals and other information resources from external databases onto personal devices such as laptops, desktops, external drives and other storage devices. Gathering information in this way would therefore fail to yield the expected result unless the scholar knows how to properly organize information resources.

The need for information organisation skills as part of the information retrieval process is a direct fallout of the information explosion created by information and communication technology. It is inevitable that continuous retrieval of information on a particular subject will result in a sizable body of information resources obtained

from different information systems with different file naming conventions. Without proper organizational skills and techniques, the information resources are often unusable as they are all lumped together with no way of knowing which is which. Some may even be stored on different location on the scholars' devices. This makes it imperative for scholars to devise organisational systems and tools for storing and managing information resources obtained online.

Accordingly, management of information was one of the activities proposed an extension of Ellis's model of scholarly information seeking process. As the online information resources are private collection of individuals, it is difficult to have a uniform method of organization. Nonetheless, researchers have examined the most common methods of organizing personal information resources among various scholars<sup>18</sup>. Most of the studies that have examined the organization of personal collections have been focused on the humanities or the social sciences. It was often found that many scholars are still clinging to printed information resources due to fear of computer failure, lack of technological skills, and computer storage space limitations<sup>13</sup>.

Digital competences are combination of various skills necessary to effectively operate in technology-driven environment. Although technology is conceived as a way to simplify and speed up various processes including information creation, organisation, storage, retrieval and transmission, it also has various aspects which require different types of skills. The combination of skills that make up digital competence include, device and software literacy, information and data literacy skills, digital content creation. There have been little or no attempt by scholars to evaluate the level of these skills among legal practitioners<sup>19</sup>.

Device and software literacy is demonstrated by the ability of legal practitioners to use general ICT-based devices, applications, software and services as required; use basic productivity software, spreadsheets, and writing/presentation software; use a web browser and web services, use digital capture devices such as a camera, audio recorder and associated editing software; use institutional systems such as catalogues, data records, and use communication tools such as email, messaging, video, chat, sharing services. It also includes ability to learn from mistakes in the use of ICT, fix problems; stay up to date with ICT as it evolves; adopt new systems, applications and approaches into practice.

Information and data literacy skill include the ability to find, evaluate, manage, create, organise and share digital information. It also involves the ability to map and evaluate the information landscape, select and use a wide range of resource discovery tools and approaches; identify and use specialist sources of information such as portals, catalogues, gateways, archives, datasets<sup>20</sup>. Information literacy skills therefore encompasses the ability of legal practitioners to identified relevant sources of online legal resources. It means they are aware of sources such as LegalPedia, LexisNEXis, Law Pavilion, HeinOnline and other databases commonly used by their colleagues in Nigeria and other countries. Information literacy also include the ability to discriminate or critically evaluate sources of information based on authors or publishers, country of origin and the content of information sources. This is important for legal practitioners who rely on solid, factual information to win legal cases. Being information and data literate will all also be useful in the third dimension of digital competence which is digital content creation.

The third construct is digital content creation. The skills here include the ability to produce and edit digital contents; to enhance and incorporate data and content into a

body of already existing knowledge while being aware of relevant copyright and licensing laws and the ability to use appropriate keywords and commands when using a computer system. Digital content creation skills also encompass the ability to critically read, interpret and respond to messages in a range of digital media – text, graphical, video, animation and simulation, audio, data visualisation, presentations, wiki/blog articles.

A legal practitioner with the basic digital content creation skills is expected to be able to choose and use media resources to express ideas with an awareness of design, audience, impact. It also includes being aware of and acknowledging the source of digital information retrieved from the internet in whatever medium it is communicated<sup>3</sup>. A media literate legal practitioner would be able to understand the various formats in which online legal information is provided and the appropriate devices or applications to use with each media. However, many legal practitioners have demonstrated a reluctance to embrace the use of technology which has limited their level of media literacy skills<sup>20</sup>.

The incidence of lack of or low information retrieval combined with low digital literacy is likely to have a negative impact on the legal research and overall knowledge of legal practitioner. This is why researchers have shown interest in understanding the factors affecting the use of online legal information resources among legal practitioners. However, while several factors such as awareness, ICT skills and others have been explored, no study has investigated the combination of information retrieval skills and digital competence as factors in the use of online legal information resources. This study therefore will fill the gap in knowledge created by investigating the influence of information retrieval skills and digital competence on

the use of online legal information resources among legal practitioners in Ogun state, Nigeria.

## **1.2 Statement of the Problem**

Law as an information-based profession depends largely on timely and accurate information. Judges and magistrates need information to make judicial decisions. Lawyers on the other hand, equally need information to argue their cases in court and to carry out other legal activities such as litigation, drafting of legal documents, legal advisory and research etc. However, the fast and quick information needed for speedy justice delivery can only be accessed through online legal information resources. To this end, the researcher noticed that despite the huge benefits online information resources have to offer, lawyers still depend on printed information resources.

Both information retrieval and digital competence offer many advantages to professionals such as legal practitioners. They enable them to acquire the latest and the most relevant online legal information resources and help in presentation of the retrieved information in a compelling way that convince the audience about the soundness of the position of the presenters. For legal practitioners who are in the business of proving and disproving issues, using online legal information resources is unavoidable. However, there is a dearth of literature on the influence of information retrieval and digital competence on the use of online legal information resources among legal practitioners. Hence, this study examines the influence of information retrieval and digital competence on the use of online legal information resources among legal practitioners in Ogun state, Nigeria

### **1.3 Aim and Objectives of the Study**

The main objective of the study is to investigate the influence of information retrieval skills and digital competence on the use of online legal information resources among legal practitioners in Ogun State. In order to achieve this, the specific objectives are to:

- i. identify the level (frequency and purpose) of use of online legal information resources by legal practitioners in Ogun State.
- ii. identify the level of information retrieval skills among legal practitioners in Ogun State.
- iii. determine the level of digital competence among legal practitioners in Ogun State;
- iv. examine the influence of information retrieval skills on the use of online legal information resources by legal practitioners in Ogun State.
- v. determine the influence of digital competence on the use of online legal information resources by legal practitioners in Ogun State;
- vi. ascertain the combined influence of information retrieval skills and digital competence on the use legal information resources by legal practitioners in Ogun State.

### **1.4 Research Questions**

The following questions will guide the study

1. What is the level of use (frequency and purpose) of online legal information resources by legal practitioners in Ogun State?
2. What is the level of information retrieval skills among legal practitioners in Ogun State?

3. What is the level of digital competence among legal practitioners in Ogun State;

### **1.5 Hypotheses**

The following null hypotheses will be tested at 0.05 level of significance:

- H<sub>01</sub>: There will be no significant influence of information retrieval skills on the use of online legal information resources by legal practitioners in Ogun State.
- H<sub>02</sub>: There will be no significant influence of digital competencies on the use of online legal information resources by legal practitioners in Ogun State.
- H<sub>03</sub>: There will be no combined significant influence of information retrieval skills and digital competence on the use of legal information resources by legal practitioners in Ogun State

### **1.6 Significance of the Study**

This study is of benefit to the Ogun State, legal practitioners, law librarians, and the society at large. It has also expanded the frontier of knowledge in law librarianship and library and information science in general.

Ogun state stands benefit from this study because knowledgeable legal practitioners are assets to any legal system. By exposing the factors affecting the use of online legal resources among the legal practitioners and proposing appropriate solutions, the study can indirectly contribute to the quality of legal research and out in the state. This is good for the effective functioning of the legal system and set it apart as a truly a gathering of learned professionals.

Legal practitioners also benefit from the study. This is possible through the information about online resources that will be put in their disposal through this study. In addition, by identifying the factors hindering their use of online legal resources and suggesting workable solutions to these challenges, the study can boost the use of online resources among the legal practitioners which is going to enhance their research and improve the quality of their legal arguments.

The study also be useful for library and information professionals catering to the needs of legal practitioners. The study findings would enlighten law librarians and other professionals about the information behavior of legal practitioners. The recommendation that will come at the end of the research can be incorporated and also, the information professionals can also devise their own strategies based on the findings of this study. The end result is expected to be an improvement in their ability to better provide library and information services to legal practitioners in the 21<sup>st</sup> century. This is also expected to trickle down to the wider society.

The wider society also benefit from this study through improved legal representation and better interpretation of the law in a way that protects all citizens irrespective of status. In the theoretical sense, the study is expected to add to the body of existing literature on library services to legal practitioners. It is also expected to fill certain gaps in literature, particularly in the exploration of the information retrieval skills of legal practitioners.

### **1.7 Scope of the Study**

The study examined the influence of information retrieval skills and digital competence on the use of legal information resources by legal practitioners. The dependent variable is the use of online legal information resources which will be

measured by frequency of use and purpose of use. The independent variables are information retrieval skills and digital competences. Information retrieval skills is measured by constructs such as; direct searching, chaining, browsing, accessing, gathering, and organising. The second independent variable is digital competences which is measured by device and software literacy, information and data literacy skills, and digital content creation. The study will be limited to Ogun state, Nigeria. The population of the study will comprise all members of the Nigerian Bar Association (NBA), Ogun state chapter. The NBA was targeted because it is made up of qualified and practicing lawyers who are active users of legal information resources.

### **1.8 Limitation of the Study**

Although the researcher is aware of the possibility of other factors that may affect the use of online information resources by legal practitioners, the focus of the current study will be on information retrieval skills and digital competence of the practitioners. In addition, the study is limited to Ogun state instead of covering more states in Southwest Nigeria due to the logistics involved in gathering data from lawyers, who are always on the move, across many states

### **1.9 Operational Definition of Terms**

**Online Legal Resources:** this are information resources in digital formats, downloadable through the internet, that are relevant to the needs of legal practitioners in Ogun State.

**Use of Online Legal Resources:** this refers to the frequency and purpose of viewing, reading, downloading and otherwise consulting online information resources by legal practitioners in Ogun State.

**Frequency of Use:** this refers to the interval between each use of online legal information resources by legal practitioners in Ogun State.

**Purpose of Use:** this refers to the motivation behind the use or tasks to be achieved in using online legal information resources by legal practitioners in Ogun State.

**Information Retrieval Skills:** this refers to the ability of legal practitioners in Ogun State to efficiently browse, identify and retrieve necessary literature using manual or computerized methods, in order to meet specific information needs.

**Direct searching:** Direct search occurs when legal practitioners in Ogun State already has a particular subject or topic in mind.

**Chaining:** Chaining refers to the ability of legal practitioners in Ogun State to use citation in a given article to bring together related information or to expand a search in order to obtain all the needed information.

**Browsing:** Browsing is the activity engaged in by legal practitioners in Ogun State when they have no specific information need.

**Assessing:** this refers to the ability of legal practitioners in Ogun State to evaluate information resources and information systems of interest and determine their relevance and utility.

**Gathering:** this is the process of downloading electronic version of books, journals and other information resources from external databases onto personal devices such as laptops, desktops, external drives and other storage devices by legal practitioners in Ogun State

**Organising:** this refers to the practice of arranging information resources retrieved in a particular order such as alphabetical, chronological, hierarchical etc. by legal practitioners in Ogun State.

**Digital Competence:** this refers to the combination of various skills necessary for legal practitioners in Ogun state to effectively use online legal information resources.

**Device and Software Operation:** this refers to the ability of legal practitioners in Ogun state to make use of digital devices and computer software for online legal information resources retrieval.

**Information and Data Literacy:** this refers to the ability of legal practitioners in Ogun state to properly state information needs, locate and retrieve online legal information resources in various formats, evaluate information sources and contents.

**Digital Content Creation:** this refers to the ability of legal practitioners in Ogun state to produce and edit digital contents; to enhance and incorporate data and content into a body of already existing knowledge while being aware of relevant copyright and licensing laws.

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## Endnotes

1. V.P. Setyawan, & I.D. Kurniawan, *Reversal of the Burden of Proof and Recovery of State Assets Due to Corruption*. **Jatiswara**, 37(1), 2022. pp.1-12.
2. D. Golenko, & L. Siber, *Information literacy of Lawyers in their Working Environment*. In *European Conference on Information Literacy*. **Springer, Cham**. 2018, pp. 78-86
3. Y. Shao, Y. Wu, Y. Liu, J. Mao, M. Zhang, & S. Ma, *Investigating user behavior in legal case retrieval*. In *Proceedings of the 44th International ACM SIGIR Conference on Research and Development in Information Retrieval 2021*, pp. 962-972.
4. C. Kaluba, & F. Mulauzi, *Information Needs and Information Seeking Behaviour of Judges and Lawyers: A Study of the Judiciary Superior Courts in Lusaka, Zambia*. Doctoral Dissertation, 2019.
5. N.N. Mathabela, *Information Needs and Information Seeking Behaviour of Private Practicing Lawyers in Swaziland: A Case Study of the Law Society of Swaziland*, Doctoral Dissertation, 2018.
6. Y. T. Babalola, & C. Azubuiké, *Antecedents of the use of Electronic Information Resources by Lawyers in selected law firms in Lagos State, Nigeria*. **Information Impact: Journal of Information and Knowledge Management**, 9(4), 2018, 1-13.
7. A. Uluocha, & M. Iyabo, *Information Resources Availability and Utilisation as Determinants of Law Lecturers Research Productivity*. **Journal of Applied Information Science and Technology**, 7 (2), 2014.
8. W. Nwagwu, & Z. Ajibade, *Information Needs, Information Sources, Information Uses and Information-seeking Behaviours of Lawyers in Oyo State Nigeria*. **Mousaion**, 38(4). 2020
9. M. Jamil, M. Tariq, & K. Shahzad, *Digital Competencies of Legal Practitioners of Lahore High Court Bar Association (LHCBA)*. **International Journal of Information Management Sciences**, 2(1), 2018. pp.10-23.
10. L. A. Atanda, & J. E. Ugwulebo, *Awareness, Access and Utilization of Library Catalogue by Undergraduate Students of the College of Law, Osun State University Osogbo, Osun State, Nigeria*. **International Journal of Library and Information Science**, 9(11): 2017, 115-121
11. W.O. Anyim, *Knowledge and Use of Information Retrieval Tools by Lawyers at Miyetti Law Abuja, Nigeria*. **International Journal of Library and Information Studies**, 10(1), 2020. pp.36-44.
12. J. Ferdows, *An Empirical Investigation of Information Retrieval Skills Among Undergraduate Students of Dhaka University*. Master's Thesis, University of Dhaka, 2014.

13. American Library Association, *Teaching library and Information Retrieval Skills to Academic Administrators and Support Staff*. **College & Research Libraries News**, 49(4), 2020. pp.217-225.
14. P. Nieminen, E. Uma, S. Pal, M.L. Laitala, O.P. Lappalainen, & E. Varghese, *Information Retrieval and Awareness about Evidence-Based Dentistry among Dental Undergraduate Students—A Comparative Study between Students from Malaysia and Finland*. **Dentistry Journal**, 8(3), 2020. p.103.
15. T.A.H. Famaren, & S.T.C. Tofi, *Influence of Information Retrieval Skills of Undergraduate Students on their Effective Use of Electronic Resources in University Libraries in Benue State, Nigeria*, **Jewel Journal of Librarianship** Volume 16, Issue 3; 2021 <https://www.jeweljournals.com>
16. A. M. Rubin, & R. B. Rubin, *Information Gathering. In Media Education Assessment Handbook* New York: Routledge. 2020. Pp. 189-212
17. A. VanScoy, H. Julien, & A. Harding, *Integration of Information Behavior into Reference and Information Services Education: A Syllabus Study*. **Journal of Education for Library and Information Science**, 2021. p.e20210008.
18. H. Miço, & J. Cungu, *The Need for Digital Education in the Teaching Profession: A Path toward Using the European Digital Competence Framework in Albania*. **IAFOR Journal of Education**, 10(2), 2022, 29-50.
19. I. R. Odede, & N. Zawedde, "Information Literacy Skills in using Electronic Information Resources". **Library Philosophy and Practice** (e-journal). 2018, 1947. <http://digitalcommons.unl.edu/libphilprac/1947>
20. European Union. "The Digital Competence Framework." **EU Science Hub**. Available: [https://joint-research-centre.ec.europa.eu/digcomp/digital-competence-framework\\_en#the-digcomp-conceptual-reference-model](https://joint-research-centre.ec.europa.eu/digcomp/digital-competence-framework_en#the-digcomp-conceptual-reference-model).

## **Chapter Two**

### **Literature Review**

This chapter examines previous works that have been carried out in relation to information retrieval, digital competence and use online information resources with particular reference to legal information resources. The chapter is discussed under the following subheadings

#### **2.1. Conceptual Review**

2.1.1 Use of Online Legal Information Resources

2.1.2 The Concept of Information Retrieval Skills Among Legal Practitioners.

2.1.3 The Concept of Digital Competence Among Legal Practitioners.

#### **2.2 Theoretical Framework**

2.2.1 Technology Acceptance Model (Davis, 1989)

2.2.2 Scholarly Primitive Theory by David Unsworth (2000)

2.2.3 UNESCO's Global Digital Literacy Framework (2018)

#### **2.3 Review of Empirical Studies**

2.3.1 Influence of Information Retrieval Skills on the Use of Online Legal Information Resources by Legal Practitioners.

2.3.2 Influence of Digital competence on the Use of Online Legal Information Resources by Legal Practitioners in Ogun State;

2.3.3 Combined Influence of Information Retrieval Skills and Digital Competence on the Use of Legal Information Resources by Legal Practitioners.

#### **2.4 Conceptual Model**

## **2.5 Summary of Gap in Literature Reviewed**

### **2.1. Conceptual Review**

This section reviews the various concepts derived from the study variables such as online information resources and its use; information retrieval skills, and digital competence. The review focuses on the definitions and application of each of the concepts as used in related literature. These are then synthesized to justify how these concepts are used in the current study

#### **2.1.1 Use of Online Legal Information Resources**

In order to use online information resources, the user must have an appreciable understanding of what they represent, their origin, formats and their general sources. As a result, the review will begin with the concept of online information resources in order to be able to properly discuss their use in general and among legal practitioners in particular. Online information resources literally mean information resources that can be accessed and retrieved from online databases. The term 'online' is thus an indicator of where these information resources resides and where they are often found. However, before they were tagged as 'online resources' they were first and foremost online or digital information resources.

Online information resources are simply defined as information resources that appear in digital formation or converted to digital format which can only be accessed through online devices and networks<sup>1</sup>. The term 'online information resources' is used to represent a wide range of information resources in diverse formats. As a result, different conceptualization of what represents online information resources exists in literature. A scholar observed that online information resources are known and referred to by several names which include online information, online collections,

online publications, digital resources, digital collections or digital resources among others. All these names derive from the key characteristic which is that these information resources are usually delivered and accessed through online devices<sup>2</sup>. Although the computer is the common device associated with the delivery and access to online information resources in the modern era, there are numerous others that are used to access online information such as tape recorders, audio players, video players, televisions and radio among others<sup>3</sup>.

The devices associated with accessing online information resources reflects the various type that exists. Researchers have identified various types of online information resources to include; scholarly databases, online books, online journals, Online Public Access Catalogues (OPACs), internet resources, microfilm, audio tapes, video tapes, models, datasets, software etc.<sup>4</sup> This typology is reflected in the common definition of online information resources as the type of information sources available and accessible through online systems such as computers and other online information systems such as online library catalogues, the internet and the World Wide Web, digital libraries and archives, government portals and websites, etc.<sup>5</sup>

The origin of online information resources can be traced to the development of the flash cards and other online information surrogates such as the Machine Readable Catalogues (MARC)<sup>6</sup>. This means that online information has been in existence before the introduction of the World Wide Web which came about thirty years later<sup>7</sup>.

The first types of online information resources. were bibliographic databases became available at approximately the same time. Libraries provided access to data sets such as census and survey data as early as the 1970s. During the microcomputer revolution of the 1980s, libraries acquired software and data on diskettes and offered databases on CD-ROM. Databases on CD-ROM began to contain full text. Search interfaces

became more straightforward and simpler to use. Online catalogs became more common, and libraries began to offer them through the pre-World Wide Web Internet<sup>8</sup>.

The subsequent development of the Mosaic browser in 1992 led to widespread use of the Web beginning in 1993. The graphical interface and the later development of Web search engines such as Yahoo! made online information resources more accessible to average information users<sup>9</sup>. Indeed, online information resources which have been stored on CD-ROMS became widely available beginning in the mid-1990. Libraries offered Web-based catalogs, bibliographic and full-text databases, online journals, and eventually online books through the internet. Each technological development in library online resources during the 20th century was intended to make access to resources more direct, convenient, and timely for the user<sup>10</sup>. However, each of these resources emerged at various phases of development of online information resources. One of the earliest form of online information resources is the CD-ROM.

The name CD ROM means Compact Disc Read-Only Memory. They are pre-pressed optical compact discs capable of holding data in various formats such as text, graphics, image, audio and video. However, CD-ROMs are usually associated with textual, scholarly resources. Scholarly publishers began to distribute online databases on compact disc-read only memory (CD-ROM) in the mid 1980's. CD-ROM technology was touted as the "new papyrus".<sup>11</sup> The technology made it possible for information resources to be mass produced, easily preserved, and shared quickly across wide geographical locations. The first commercially available CDROM product designed specifically for libraries was Library Corporation's BiblioFile<sup>12</sup>.

This CD-ROM contained Library of Congress MARC cataloging records and was exhibited at the American Library Association's midwinter meeting in January of 1985.<sup>13</sup> Databases on CD-ROM quickly became popular for several reasons. CD-

ROM databases with user-friendly interfaces putting online searching into the hands of the end user. Patrons no longer had to request the assistance of a librarian to gain access to these online resources, resulting in a service model that was more closely aligned with core library values than mediated searching.

Another benefit of CD-ROM databases was that users could search them as much as they wished without concern for per search or per minute charges. Libraries could budget more easily for database use since they did not have to predict the amount of online searching that would be requested. Optical discs provided high-density storage compared to other media available at the time, such as floppy discs and magnetic tape. They were also more durable and could not be altered or erased.<sup>14</sup> The ability to print citations from a computer rather than having to write them down was also very convenient for patrons.

However, CD-ROM have their shortcomings because the databases had to be made, copied, and transported to the library from the publishers, CD-ROM could not be updated as frequently as online databases. Some databases were updated regularly, some quarterly, and yet others once a year. With the arrival of CD-ROM databases, librarians were confronted with a new purchasing paradigm that they were slow to accept. Although some were available for outright purchase, vendors usually offered these CD-ROM database items as annual serials subscriptions. As a result of purchasing databases on a subscription basis, libraries paid considerable sums of money for data that was leased for a short time rather than purchasing a resource that could be added to a library's collection eternally or paying for an internet search on demand.<sup>15</sup> another form of online information resources is the online public access catalogue (OPAC)

The Online Public Access Catalog (OPAC) is the library's online catalogue cabinet. The first OPAC was discovered in the Ohio State University Libraries. The library became the first to install computer terminals that allowed visitors to search its collections using specific keywords. This system was referred to as the 'library control system,' and it was one of the first online catalogs. The catalog may be searched by author, title, author and title, call number, and Library of Congress subject headings<sup>16</sup>. There was also a computerized shelf list that patrons could browse. Computer-output-microform (COM) catalogs were another alternative to the card catalog that developed as a result of shared online cataloging.

The OPAC became essential because the catalogue cabinet was becoming inadequate especially for libraries with large collections. However, the cost of setting up an OPAC in the early days was so high that only libraries that only large libraries with very vast collections found it economical to install used these catalogs<sup>17</sup>. COM catalogs enjoyed only a brief period of popularity due to patrons' clear preference for online catalogs over microform. Online catalogs began to replace existing library card catalogs in significant numbers during the 1980s<sup>18</sup>.

By 1989, 50% of all library systems purchased had a functioning patron access catalog. Many card catalog cabinets were thrown away or sold. To facilitate the transition from card catalogs to online catalogs, online catalogs were developed to imitate card catalog functionality. Text-based catalogs were accessible remotely using the TELNET protocol, but only reasonably competent computer-using library patrons used this method. That changed dramatically with the introduction of the World Wide Web<sup>19</sup>. The technology advancement that led to the development of OPACs also made it possible for the production of online journals.

Online journals are digital version of the printed journals. They are among the early form of information resources to appear online. As soon as the internet was made available around 1982, through the Online Information Exchange System (EIES), scholars have been putting their research outputs online. This was then followed the journal publishers who started creating online versions of their existing printed journal. Online journals are exactly like printed journal in all aspects excepted that they are not printed on a paper.

Online journals contain research articles from scholars in various discipline. Each article goes through the usual peer review process. However, instead of dealing with paper, both the editors and authors exchange digital copies of the article. With the opportunities provided by the internet, more journals began appearing online. As many information users shifted their printed journal journals to online platforms. The advantages of online scholarly journals lie in the fact that they can be easily accessed without geographic and time barriers. Unlike printed journals that have to be printed and mailed to the subscribers, online journals are posted on the publishers' websites where subscribers can access them using login credentials issued by the publishers.

The proliferation of online journals soon leads to the creation of scholarly databases where all the journals from each publisher can be accessed. Publishers such as Elsevier (ScienceDirect), Taylor and Francis, Sage, Emerald, BioOne, HeinOnline and many others are now offering online access to research resource based on subscription. There are also aggregate databases that bring together various publishers and offer them as a bundle to libraries and other organisations whose operation rely on the use of research output. These aggregated databases include EBSCOHost, Research4Life, Web of Science, Scopus, Microsoft Academy and many others<sup>19</sup>. The stated aim of these databases is to reduce the cost of subscribing to individual journals

or publishers but there has been concerns raised by librarians that these bundle databases are actually forcing libraries to subscribe to collections they do not need<sup>20</sup>.

However, organisation, institutions, and libraries also have options of subscribing to subject-based databases to avoid paying premium costs for resources on aggregated databases. For instance, there are subject-specific databases for the legal profession. These include databases such as Lexis-Nexis, Law Pavilion, LegalPedia, Goali, HeinOnline and several others<sup>21</sup>. All these databases have revolutionized access to legal information resources. They have made it easier to search for legal precedents, find information to prepare legal briefs and conduct legal research at any level. Indeed, available literature has shown that online information resources are now used by various categories of information users across the world<sup>22,23</sup>. Virtually all online information resources are now disseminated through networked systems which has made online resources synonymous to online information resources.

The use of online information resources is now commonplace in every aspect of human endeavor. These resources have dramatically altered information handling and administration in academic and research institutions as well as other knowledge based organisations such as the legal profession.<sup>24</sup> Concepts such as online books, virtual libraries, and e-libraries have grown in popularity in the academic world. The introduction of e-books and e-learning into the sphere of education implies the advancement of knowledge and the creation of the opportunity to acquire it for everyone, anywhere and at any time. This could be because users of online information resources can find a specific topic much more easily and effectively than in a printed one<sup>25</sup>

Studies have found that the general acceptance and use of online information resources among the new generation of students and professionals is due to various

advantages they offer users<sup>26,27</sup>. Some of the advantages ascribed to the use of online information resources include its ability to enhance access to information, increase usability and efficiency of use, and develop new methods for users to use the accessible information resources irrespective of where they are or when they need the information. Online information resources also provide consumers with immediate access to information at the point of need. Furthermore, unlike print information resources, which are not updated on a regular basis, the utilization of online information resources allows users to be well-informed and up-to-date in their particular areas of interest<sup>28</sup>. Online information resources use makes learning and research much easier, faster and better for users in the pursuit of various purposes.

Online information resources have become popular across the world educational system including higher institutions<sup>29</sup>. They are of great importance to the academic and research needs of undergraduate students in tertiary institutions libraries since they are available in various formats. Further on online information resources aptness to users' information needs, online information resources contain current information because of the opportunity it provides them to be able to update their knowledge frequently. These are some of the unique attributes of online information resources among other information carrying media that make their use more popular among students; as well as its ability to offer flexibility in the storage of search results; and allowing access to information without the restrictions of time and location. Indeed online information resources have increasingly become an invaluable asset in education, research, teaching and learning because it transformed the conduct of research and teaching in institutions of learning by allowing academic staff and students the opportunity to access a wide range of more accurate and timely information on various subjects<sup>30</sup>. In other words, online information resources are

highly important teaching and research tools, which complement print-based resources and enhance the learning and research processes<sup>31</sup>.

Another benefit or advantage of online information resources is that the information needed can be delivered from the most appropriate source to the user. Users now have the choice of choosing between various formats such as pdf, doc, html, and others that suit their purposes. Online information resources also provide an access to unlimited sources of information through its search capabilities continuously. Through the use of online information resources, a user is able to access information, both bibliographic and full-text, in several million documents over a long distance<sup>32</sup>. Similarly, online information resources are most valuable tools for studying, learning and research. Online resources can provide many benefits over the traditional print-based resources: they contain current information because they are usually updated regularly, they offer advanced search patterns, they offer flexibility in the storage and for the retrievals of information, and they allow access to information without the boundaries of time and location<sup>33</sup>. Scanning through the conventional card catalogues for research materials has long receded into history due to the facilitating potentials of online resources which enables the user to accomplish time-bound research. Thus, researchers and professionals such as legal practitioners now utilize the plethora of online information resources for research more frequently due to speed of availability and ease of access<sup>34,35</sup>.

A single unit of online information resource can also be accessed by s multiple users at the same time, and decreasing the time spent searching for information or waiting to use a book that is being used by another researcher<sup>36</sup>. Online information resources are increasingly needed by legal professionals because they specially make information available, easier and provide faster access to information than

information accessible via printed media<sup>37</sup>. Online information sources have become more and more popular since they also provide multimedia information, full-text searching, reference linking and flexibility in searching and browsing<sup>38</sup>. Thus, the use of EIRs is increasingly becoming high especially among students.

Today, academic and special libraries belonging to all kinds institutions and organisations have been spending larger and larger shares of their budgets to adopt or gain access to online resources from publishers and vendors<sup>32</sup>. This is due the fact that online information resources have enabled them to improve services in a variety of ways. Most importantly, most online resources come equipped with powerful search-and retrieval tools that allow users to perform literature searches more effectively and efficiently than when they are used <sup>39</sup>. Moreover, since most relevant e-resources are now available through the web, users can have access to them 24 hours a day. The users can also navigate directly from indexing databases to the full text of an article and can even follow further links from there. The emergence of e-books and e-journals followed the widespread adoption and use of online mail, list servers and discussion groups to disseminate information quickly to large audiences.

Summarily, EIRs use benefits span through quick access to global information resources without issues of distance barrier, ease-of-use, facilitation of staff and students effective and efficient document retrieval via library OPAC platforms and other search engines facilities or program, ease of content copying and its portability and simultaneous usage benefits unlike print information resources <sup>40</sup>. For instance, EIRs unlike print journals reports, it facilitates access to current research findings that undergraduates can make use of for project writing and personal academic developments<sup>41</sup>. Moreover, some online databases provide the option for users to search their content which could help users such as undergraduate students to have

access to myriads of information contents across the Internet of things that is becoming the most efficient means of information service or documents delivery online<sup>41</sup>.

Use of online resources is important because, it has been identified as a way to boost the quality of teaching, learning and research in an academic institution<sup>42</sup>. Indeed, academic institutions are now asking their libraries to show return on investment (ROI) by providing statistical analysis of how the provision of online resources has improved, research productivity, academic performance and the use of the physical library<sup>33,43,44</sup> among other variables. As a result, there are various empirical studies that have been conducted to evaluate the frequency of online resources use among different categories of library users.

In a study on the use of online resources by undergraduate students in Jamaica, the author stated that the internet has attracted the attention of the users as an easy source for accessing information and online resources use is gradually increasing. In other words, there is substantial increase in the use of online resources among scholars resulting from ease of access compared to those in print formats. Their study however found that only a sizeable number of users could frequently seek information from online resources. Most of the users access online resources for updating their knowledge on their respective subjects and for academic assignments<sup>34</sup>.

In conceptualizing the frequency of use, scholars have often look at daily, weekly, monthly and yearly use of information resources. Some studies have however used the patronage of the library to represent the use of information resources, assuming that any user who visit the library has to make use of one information resources or the other. Others scholars have however opted for metrics such as occasionally, regularly, often and never to measure frequency of use. This is better as the concept of

frequency is relative meaning that it depends on the needs of the user. Similarly, a study on the use of online resources by postgraduate students of University of Cape Coast with the objectives of determining postgraduate students' awareness of online resources in the library and find out the frequency of usage of e-resources by students. The findings revealed that most of the postgraduate students were aware of the e resources available in the library and make use of them. The findings of this study also revealed that most postgraduate students rather preferred to access information from Google scholar, and other web based databases more frequently than the databases in the library<sup>45</sup>.

Furthermore, the use of online resources by undergraduate students of the Ghana Institute of Management and Public Administration (GIMPA) to find out if students utilize online resources. The findings revealed that, though students do not fully utilize online resources to support their academic pursuit, a significant number of them do access online resources when on campus and off campus and mostly used online devices such as laptops, ipad, desktop computers, and mobile phones<sup>46</sup>.

Reporting on the use of online resources among Postgraduate students in southern part of Nigeria, the use online information resources, in particular on CD-ROM, has been positive, with students enjoying using these sources and finding relatively few problems while using them<sup>47</sup>. Also, majority of students surveyed felt that using this source saved them time, and found it relatively easy to use<sup>48</sup>. Two thirds of those surveyed stated that if the CD-ROM was busy, they would wait for it to become free rather than use the print tool.

Despite the advantages of online information resources, personal and institutional factors can also limit the frequency of use. This is demonstrated in a study which survey of 350 respondents examined student's access, usage and awareness of online

information resources at the University College Hospital (UCH) Ibadan, Nigeria. The study found that the level of usage of the online information resources among health practitioners is low<sup>49</sup>.

Similarly, studies on the use and frequency of use of online resources have yield mixed results even among similar demographics. Evaluating the use of online resources among Indian higher institution students revealed that a large number of users have started using online journals at as many of the students were found to be frequent users of online journals and other information resources in the library.<sup>50</sup>

While on the other hand, the use of internet and online resources among students of business management, found that online resources and services in varied forms are rarely used by majority of management students despite the fact the students were of the opinion that these resources are highly important for self-learning<sup>51</sup>.

Furthermore, a survey on the use of e-resources by science students in the same university revealed that almost all of the respondents were frequent users of online resources compared to print documents. The ease of access to online resources are considered as one of the major constraints in effective use of e-resources<sup>52</sup>. Where the issue of access has been solved, the frequency of use is likely to go up as found in a study of the use of online resources by the postgraduate students at Institute of Technology, Banaras Hindu. It was found that the students male use of online information resources daily<sup>53</sup>.

Similarly, researchers in Singapore examined the frequency of online information resources use among lecturers, students, and researchers. It was found that the frequency of use range from daily, times every week, once a week, and once every two weeks in that order, showing that the daily users of electronic information resources are in the majority. A few of the respondents also reported that the access

the resources at least once a month<sup>54</sup>. The study was more inclusive in the categories of users sampled but it would have been better if an analysis of the frequency of use among each category was provided. However, the study showed that all the respondents make use of electronic information resources although to different extent. In the course of examining the frequency of use of online resources, researchers have also attempted to identify the type of online information resources commonly used by information users. Studies have shown that the most frequently accessed online resources are e-books and e-journals<sup>55</sup>.

The use of online information resources is not limited to students as majority of lecturers indicated that they regularly used at least one or more online information resources to find information for use for their teaching and/or research<sup>56</sup>. Meanwhile, a study on the awareness, accessibility and use of online databases among academic staff of Babcock University, Nigeria revealed that just about 17% of the total respondents are frequent users of online resources in the library<sup>57</sup>. It must however be clarified that these lecturers did not use the online resources provided by the library because they have access to online resources elsewhere. While the majority of study on the use of electronic information resources have been focused on academic settings, there are quite a number who have focused on professionals such as lawyers, nurses and engineers among others.

A study on the information behaviour of lawyers in Oyo state reported that, while lawyers mostly prefer to use printed information resources, majority of them are now using online databases although they are still finding it difficult to make use of Online Public Access Catalogues (OPAC)<sup>58</sup>. In another study examining the use of online information resources among lawyers affiliated to the Delhi High Court Bar Association, India, it was found that the legal practitioners frequently made use of

online journal articles and the purposes of using these resources include; finding relevant information quickly and to keep abreast of legal development<sup>59</sup>. This shows the recognition that online resources have current information which not yet appear in print. These advantages of having access to the latest information is one of the factors attracting legal practitioners to make use of online resources.

However, there seems to be a dichotomy between practicing and academic lawyers regarding the perception of online information resources. While academic lawyers seems to have totally embraced the use of online information resources, it seems practicing lawyers are still not totally convinced about the usefulness or superiority of online information resources over the traditional print resources<sup>60</sup>. This has often resulted in divergence in the frequency of using online information resources among academic and practicing lawyers. However, there is a paucity of studies comparing the use of online information resources among practicing and academic lawyers so it is difficult to make a definite stand on who use online resources more frequently among the two categories of lawyers. The use of online information resources is also better evaluated by examining the various purposes for which different categories of users make use of the resources.

According to a particular report focusing on the purpose of use of online information resources in an Agricultural research institute, over 40% of the researchers make use online information resources, with respondents who routinely use available online journals in their institutional libraries to conduct their own research. Whereas 37% of his study respondents utilized online resources to keep themselves updated with new material coming in their area of interest, 7% used online resources to locate relevant and current information resources to support their articles' publication interests, among other things..<sup>61</sup>

In another study among Indian students, results indicated that, about 38% of the respondents utilized online information resources for the enhancement of their study followed by 17% of the respondents who used them to complete required academic assignments. 14% of their study respondents made use of online information resources in their research works or in writing papers while 12% of the respondents consult online resources in order to update themselves in their field of knowledge<sup>56</sup>.

The purpose for using online resources seems to be different according to the demographics of the user. This means that the task, status and occupation of user often determine the purpose of use. This has been illustrated in studies focusing on students, lecturers, researchers and professional; a category to which legal practitioners belong. For instance, a study was carried out on the utilization of online information resources by undergraduates in the Faculties of Education and the Social Sciences in University of Ibadan. The study found that all the respondents used the online resources for academic purposes, course works and for online application/registration.

The purpose of using online resources included; for assignments, research, as sources of information for project writing and other personal purposes<sup>62</sup>. In the same vein, a study on the usage of online information resources by undergraduates of Federal University of Agriculture, Abeokuta, Nigeria also that majority of the students were using the results to accomplish tasks such as class assignments, to obtain course related information/study materials, to update knowledge and keep abreast of latest development and for research purposes. Those using online resources for entertainment and leisure were in the minority.

The same purposes were also reported by a study on the use of e-resources at Mzumbe University, Tanzania. The study concluded that the use of e-resources for

academic and research purposes in the university is appreciated and perceived to be important in pursuit of academic career, and this becomes much more useful when barriers to access to and use of these resources are eliminated by the library.<sup>63</sup> This means that the purpose of use of electronic information by legal practitioners will be different as they have different tasks to students; even if those students are law students. Apart from students, studies have also focused on the purpose of using online resources among lecturers and researchers.<sup>64</sup>

The use of online resources by lecturers and researchers in six Indian universities highlighted six reasons for using online information sources. Users in the study use online sources in support of their study and for teaching. One-third of respondents used the sources for project work while of medical science users accessed online information sources for study, followed by engineering and management studies.<sup>65</sup>

In Nigeria, researchers also examined the use of online resources by lecturers at University of Ilorin, Nigeria. The study which sampled 184 academic staff out of 847 academic staff at the University of Ilorin, revealed that a majority of the respondent are using online resources for conducting research work and for curriculum development in their fields, followed by those who are using the resources for self-development. A good portion of the lecturers also used online resources for skills development and for entertainment.<sup>66</sup>

Another study which examined the purpose of use of online resources by Nigerian researchers at Landmark University, Omu-Aran, Nigeria. The study that revealed various reasons given by respondents for using online resources include; for updating knowledge to develop competence, for research, preparing lecture notes, and for entertainment purposes<sup>67</sup> Similarly, a related study examined the role of online resources as a means of improving research output of academic staff in Nigerian

universities. The study adopted the survey research method in carrying out their study via structured questionnaire administered on 105 respondents to obtain required data. The data obtained were analyzed using simple percentages. Their study data analysis on purposes of EIRs use revealed academic staff reasons of use of EIRs to include for research purposes, followed by teaching and preparation of lecture notes<sup>68</sup>. Since it has been shown that the purpose of using online information resources vary according to the demographic of the use and one of the demographic is profession, it is clear that legal practitioners may have purposes of using electronic information resources that are unique to their professions.

The various purposes for which legal practitioners use online information has been outlined by researchers. Researchers in an India state examined the use of online information resources by lawyers and reported that lawyers have various specializations such as handling Civil Cases, Criminal Cases, and corporate litigation among others. The study also shows that the legal practitioners are heavily reliant on the use of information which they use for purposes such as; fact checking, tracing laws and statutes, preparing legal briefs etc<sup>69</sup>.

This is contrasted by the findings of a study which examined the purpose of using law information sources among law students in Nigeria universities. The study found that students use the information resources available for the purpose of conducting research for assignments, term papers and in preparation for examinations. Yet another study focused on the use of legal information resources by law lecturers' in Nigerian universities. The findings of the study showed that the lectures use law reports, legal periodicals, legislation and statutes, indexes and abstracts, law book, non- legal materials, reference materials, etc, for teaching and research<sup>70</sup>.

### **2.1.2 The Concept of Information Retrieval Skills Among Legal Practitioners**

In this age that online information resources like as e-journals, electronic law reports, legislation, statutes, and precedents are available through the internet in the digital era, legal practitioners can access up-to-date legal material at any time and from any location. Nonetheless, they may be unable to take advantage of this opportunity if they are unaware of the resources' existence or lack the necessary abilities to access them. While online information resources are abundantly available, legal practitioners need information retrieval skills in order to effectively make use of these resources.

The information retrieval process is a conscious and deliberate effort to find the needed information to meet an information need from within large collection of information resources domiciled in networked computer systems. It is an automated process of finding the needed online information resources such as e-journals, software, data and other related digital information. The term retrieval means the extraction of information from a content collection. Information retrieval skill is thus defined as the skills that enable an information seeker to obtain the needed information resources from online databases by being able to define and formulate the right search terms. The ability to define and formulate the appropriate search term is ultimately expected to result in the provision of relevant information resources by the information system<sup>71</sup>.

Information retrieval skill is also conceptualized as the combination of technical abilities and knowledge required to identify, locate, and utilize information to achieve specific tasks. It is the ability to find the information that meet the stated information needs of the user. That is an information user with adequate information skills should be able to retrieve from any information system, the exact information they set out to

retrieve or as close to it as possible without having to make do with any suggested resources they system push out. This is important because the inability to find the information resource the information seeker has in mind can derail the research process. However, information retrieval skill is procedural.

In line with this, a scholar defined information retrieval skills as the set of steps that an information seeker has to observe in order to identify available resources and distinguish them from other resources that are not required are referred to as information retrieval capabilities. Information retrieval abilities refer to the capacity to locate relevant information about a subject from a variety of sources. There is also a wealth of content available on the internet; however, not all of it may be useful; as a result, students must be aware of relevance. Comprehensive, effective, and up-to-date knowledge retrieval skills will boost students' academic performance and output<sup>72</sup>.

In the academic setting and indeed, in any setting where research is central the organizational success, information retrieval skills could be considered a "nucleus" of all activity. That is why several definitions of information retrieval skills have emerged from various sources. The ability to retrieve information by defining and constructing the proper queries such that only relevant information is found as a result of a certain query is referred to as information retrieval skill<sup>73</sup>. The centrality of search terms to information means that information retrieval skills may of information users may vary according to discipline or areas of focus.

Towards this extent, researchers have revealed that students enrolled in science courses often exhibit higher level of information retrieval skills than students enrolled in other courses. This can be so because the scientific field often require the latest information and information that is as close to the subject of research as possible. This notwithstanding, it is plausible to assert that information search skill is the backbone

of research regardless of discipline. Information users with the relevant combinations of information retrieval we skills may be able to seek for and retrieve relevant information and accomplish their information search tasks more effectively<sup>74</sup>.

Since information retrieval is more commonly associated with the online environment, researchers have also linked information retrieval skills to the ability to use the various information retrieval tools created to access online databases and other information systems<sup>75</sup>. The researchers claim that librarians and information services providers have put various tools, procedures and processes in place to help information users access and retrieve information from their digital libraries and other information systems<sup>82</sup>. Some of these tools designed for easy and effective retrieval of information are bibliographic resources that can be used to improve the identification, accessibility, and retrieval of information resources. These information retrieval tools include library catalogues, indexes, abstracts, search engines, bibliographies, directories, and so on<sup>76</sup>. Information retrieval tools have also been described as bibliographic control tools because of their role in facilitating easy accessibility, retrieval, and utilization of online information resources.<sup>77</sup>

Other researchers also elaborate on the link of information retrieval tools to information retrieval skills. Information retrieval tools were described in a study as information organization systems designed to organise and bring order into the arrangement of information resources in information systems, both physical and online. The physical bibliographic tools comprise tools that assist a library user in quickly identifying and retrieving an information resource of interest from the library shelves. These bibliographic tools also double as information resources management tools for librarians and information professional who often make use of them to easily inventory the library collection.

Library catalogues, card catalogues, microform or computerized catalogues, indexes, abstracts, bibliographies, directories, internet search engines, and other in-house produced information retrieval tools are examples of information retrieval tools. Bibliographies, indexes, title indexes, directories, OPAC, online databases, internet search engines, and so on were highlighted by as the key information retrieval tools offered at university libraries<sup>78</sup>. However, there is another point of view which contends that the ability to use the information retrieval tools is in itself an information retrieval skill. This school of thought that any effort carried out which contribute to the eventual retrieval of the needed information is part of information retrieval skills. This has to the identification of three facets of information retrieval skills.

Effective information retrieval would require a combination of abilities such as informational skills, operational retrieval, and strategic retrieval. These three components were suggested as the main components of information retrieval skills. Information retrieval skills can be measured using indicators such as informational, operational, and strategic skills. When combined, all of these skills could help undergraduates retrieve information more quickly and effectively. Information skills represents the capacity of information users to search, choose pertinent information, analyze information, and repurpose information. They entail being able to manage the ever-evolving online information sources and having mastery of the timing, location, and search strategies which lead to the retrieval of the most relevant information resources.

The operational search skills enable information seekers to make effective use of online information resources. It also necessitates having a firm grasp of online information systems such as scholarly databases, institutional repositories and web

pages. It also requires the knowledge of hardware, software, and other elements of digital technology. Operational skills are based on the requirement that information users learn how to use a computer and comprehend how information systems are organized by mastering fundamental techniques like keyboard and mouse use and disk management.

The second aspect of information retrieval skills suggest is the strategic retrieval skill. This is a significant aspect of the information retrieval skills. Strategic retrieval skills could be defined as an information user's capacity to formulate the appropriate search phrases and enter the appropriate queries. The current era's constant expansion in information, particularly online information resources, necessitates the need for strategic retrieval skills. Developing complex search techniques will improve the student's ability to find information and maximize their search success. Strategic skills are the ability to use computer and network resources as a way of achieving specific objectives as well as the overarching objective of elevating one's social status. Therefore, the three elements of effective information retrieval across all subjects by information users depend on one another. However, these subdivisions are closer to digital information skills than information retrieval skills. They are unable to actually identify any parts or activities involved in the process of actual information retrieval.

The building block of information retrieval is properly laid in the scholarly primitive theory. The scholarly primitive agreed that information retrieval is at the heart of scholarship and research. It therefore outlines all the activities that scholars often undergo in the process of conducting research<sup>79</sup>. The information retrieval aspect of the scholarly primitives is of relevance to this study. The activities involved in information retrieval in the online environment as outlined in the scholarly primitive include; Direct searching, chaining, browsing, accessing, gathering, organizing<sup>80</sup>.

The process of information retrieval starts with information search. Once an information user identifies the need for information, the next logical step is to approach an information system. This may be the traditional physical library or online digital library. However, the concept of information retrieval is more commonly associated with online information resources. The online information system usually combines a wide range of information resources so the information user has to search for what he/she need. Information search is the process through which information users interact with information retrieval systems. For professionals, the first process is direct searching.

Direct searching is usually for professionals and other information users who already have a clear idea about their information needs. For instance, they might be attempting to locate a certain journal article or information on a specific piece of legislation. In most situations, direct searching carried out on information systems such as scholarly databases, search engines, online catalogs, and online journals using well-known keywords, such as subjects, titles, and names among others<sup>81</sup>. Carrying out direct searching require some skills. The most important is the ability to do keyword search.

The most widely used and user-friendly method has been keyword search. Popular search engines like Google and Mozilla can be searched using this mechanism. The same is also true of all scholarly databases and other information systems such as institutional repositories. Keywords are words that have been taken out of a publication or a single sentence and make meaning when grouped together in a context. The fact that the same keywords may appear in several documents but have different meanings depending on their placement and organization emphasizes how important keywords are. On a daily basis, people utilize keywords, which are atomic

words that, when combined with other words to form phrases or short sentences, indicate information. In information organization, keywords can be derived from natural language as well as controlled vocabulary.

Natural language keyword comes from the everyday terms used by individuals and the general public. In the case of online information resources, natural language can be any term in the text. This can be derived from the title as well as the content of the work. The use of search with their powerful algorithms have made natural language keywords popular. Today, it is possible for an information seeker to input a few random words and the search engine will bring a lot of related document. This is made possible by full text searching which enable the internet to scan millions of document and retrieve several relevant information resources. This often give the internet an advantage of being able to retrieve information, even, in the extreme situation of things.

Scholarly databases often employed controlled vocabulary to index the information stored in the database. Control vocabulary are derived from standardized instruments such as thesaurus, classification. It seeks to bring together, information resources that would have scatted all over the information. It means that the author must provide certain keywords that commonly regarded as the most acceptable term in the particular field in which the researcher is working. This also means that information seekers have to know some of these terms in order to use them to retrieve the information they need. This is often the reason why search engines often return so many document than information systems.

A survey of users of a Finnish national digital resource revealed a high degree of keyword searches in both journal databases (63%) and reference databases, demonstrating the dominance of keyword searching in digital resources. Historical

researchers have discovered that keywords are crucial for finding objects that are known to be in archives. A lot of methods in searching the electronic resources have been provided by public institutions. The methods include the medium or platform used in searching the electronic resources. These are the Internet, OPAC, and online database. This type of searching method was being developed to ensure the postgraduate student be reliable to use multiple methods in searching the electronic resources for their assignment. By having a lot of methods on retrieving the electronic resources, they can complete their assignment appropriately. The various methods of searching will lead them to produce good report in their assignment. But, in order to have a good report, the postgraduate student needs to have multiple skills in searching the electronic resources<sup>81</sup>.

Once the information retrieval process is underway, one of the techniques used by scholars is chaining. This concept refers to the practice of building information resources based on the references used in a current study under review. Chaining is made possible in through the use of online information systems such as OPAC, institutional repositories, scholarly databases, online journals and search engines. This information retrieval has been validated as a distinct and notable searching approach employed by scholarly groups ranging from humanities graduate students to Jewish studies scholars, and from sociologists and computer scientists to economists and engineers<sup>82</sup>. Researchers have identified two types of chaining which is forward chaining and backward chaining.

Backwards chaining is the practice of looking at the reference list in a relevant article and discovering other useful resources to locate and read. Resources cited in a piece of study that a researcher has discovered to be relevant to their research will frequently be comparable in nature because the author of the item discovered has used

them in their own research. Backwards chaining is a method of tracing the evolution of a concept by looking backwards in time, to research written before the release of the first resource the researcher came in contact with. Backwards chaining can be done manually by scanning the library catalogue for potentially valuable materials, such as books or journals, or online by searching appropriate databases for articles<sup>83</sup>. The opposite of this is the forward chaining.

Forwards chaining is the process of looking for resources that have cited a particular work of interest to the information seeker. Forwards chaining is a method of going forward in time to research that has a particular work of interest. Forward chaining is also known as citation searching. Forward chaining has been in existence since the beginning of scholarship but the advent of networked information technologies has made it more popular. It is now possible to do forward chaining through the use of online databases such as Web of Science, Scopus and Google Scholar. While backwards chaining is done by considering the references cited in a work, forward chaining is made possible by online databases which provide a link to those articles that have cited the one at hand<sup>84</sup>. While direct searching and chaining are closely related due to their deliberate and purposeful approach to information retrieval, browsing as a technique is more liberal and generalized.

Browsing can be regarded as an open-minded approach to information search and retrieval. It is described as an open ended process in which the information users goes through a collection of assembled or accessible information with the hope of finding something useful. In browsing, the researcher is basically looking for inspiration in term of information resources that can crystalize and idea or ideas that are yet to take proper shape in the mind of the researcher. The advent of the internet has had a significant impact on what and how information users browse, as well as the rate at

which they may navigate through digital data from a variety of sources. A research combining extensive log analysis and surveys of internet use by researcher, for example, discovered that users frequently engage in what is called surfing; going quickly from website to website and only sometimes returning to investigate interesting information resources in greater depth<sup>85</sup>.

However, browsing is not limited to the use of online information resources. Scholarly browsing has been shown in studies to occur in traditional library settings. According to one major poll of arts and social science professors, over majority of them viewed browsing the library shelves to be a significant, albeit infrequent, activity. Browsing has been highly related with the humanities and interdisciplinary subjects in studies of scholarly information use more broadly.

In one small survey of interdisciplinary humanities and social science professors, nearly all of the respondents engaged in some form of browsing as part of their research process. There appears to be more variance in the sciences. According to surveys, physicists, chemists, and biologists identify up to half of their reading material by browsing, whereas browsing among astronomers was significantly lower, at 20%, presumably because to the field's more complete and integrated online information network<sup>86</sup>.

As mentioned earlier, all manner of information systems or collections are amenable to browsing. Collection of printed books on library shelves, publishers' catalogues as well as online databases and websites can be browser to various degree of speed, flexibility and depth. Research on how scientists search for information online has demonstrated how the speed and flexibility of online browsing can encourage researchers to view information resources that would otherwise be ignored. In addition, browsing online provides more depth into information search as it can also

lead scholars to more traditional library materials that they would have missed if they had not used a library portal or gateway<sup>87</sup>.

Among search approaches, browsing stands out for its ability to lead to accidental discovery called serendipity. Scholars discover resources that would not be found through searching or chaining because browsing is broad and flexible, and the new information may spark unexpected and fortuitous intellectual connections<sup>88</sup>. The researcher can reap the utmost benefit from browsing by developing the skills necessary to accurately assess information resources to determine which is useful and which is not.

The concept of assessing information sources and information resources comes from the word 'assessment' which is to evaluate and judge based on merit. As researchers scan or browse information systems, sources of interest are evaluated for relevance and utility. Previous research has described this assessment process in a variety of ways, including discriminating, comparing, and sorting. A scholar identified five distinct stages of assessment, which can be summarized as follows: "orientation" to form an initial impression of a work, "overview" to identify important details, "directing attention" to pinpoint specific document characteristics to skim, "comprehension" to interpret content, and "triggering" to initiate additional reading<sup>89</sup>.

It has also been suggested that researchers do not always need to assess each information resource they came across. Scholars have also suggested that it is possible to evaluate collections of information, such as issues of a journal or information systems such as scholarly databases, library portals, institutional repositories and the like. If these systems are judged to be of quality, then any information resources retrieved from them is also likely to be of the highest quality. Numerous investigations

have been made on the factors that affect a researcher's choice to acquire, read, or otherwise make use of a certain source.

A scholar has emphasized the importance of topicality, originality, perceived quality, timeliness, availability, and peer review as the main criteria that researchers should use in assessing information resources. In a unique longitudinal research of agricultural economists, these and other characteristics, it was found that the criteria for assessment include; orientation, depth, reading time, and author and journal reputation. Historians working with archival materials have found that evaluating them necessitates comprehending the context of a source and its connections to other sources in a collection<sup>90</sup>.

The whole essence of the information retrieval process is to build personal collections that will remain easily accessible to the researcher over the long term. Researchers are often seen as collector and, despite the ubiquity of online resources, they crave convenience and assurance that the information resources they found useful will remain accessible to support sustained consultation for the present and future information needs. Researchers have confirmed that scholars in all fields of human endeavor are used to keeping personal collections consisting mostly of printed books and journals. Each scholar will develop a collection based on their disciplines and the works they are currently involved in.

In the era when printed resources dominate scholarly communication, scholars' personal collections are a reflection their academic activities. They are known to keep information materials such as monographs, journals, reports, prepublication papers, maps and photographs. There also slight differences noted according to discipline. Scholars in engineering often had collections made up of technical reports, researchers in the field of art and humanities were mostly interested in thesis,

dissertations and other voluminous works in their fields. The collection of scholars in the sciences included journals, conference proceedings, and individual photocopied and digital papers. There is a difference between information gathering in the printed era and the digital information era

While researcher gather collection during the printed era, through published works, complimentary copies of books and journals and through direct, purchase, things are different in the online environment. With the advent of online, the gathering process is different. It requires downloading electronic version of books, journals and other information resources from external databases onto personal devices such as laptops, desktops, external drives and other storage devices. Gathering information in this way would therefore fail to yield the expected result unless the scholar knows how to properly organize information resources.

The need for information organizing skills as part of the information retrieval process is a direct fallout of the information explosion created by information and communication technology. It is inevitable that continuous retrieval of information on a particular subject will result in a sizable body of information resources obtained from different information systems with different file naming conventions. Without proper organizational skills and techniques, the information resources are often unusable as they are all lumped together with no way of knowing which is which. Some may even be stored on different location on the scholars' devices. This makes it imperative for scholars to devise organizational systems and tools for storing and managing information resources obtained online.

Accordingly, management of information was one of the activities proposed an extension of Ellis's model of scholarly information seeking process.<sup>91</sup> As the online information resources are private collection of individuals, it is difficult to have a

uniform method of organization. Nonetheless, researchers have examined the most common methods of organizing personal information resources among various scholars. Most of the studies that have examined the organization of personal collections have been focused on the humanities or the social sciences. It was often found that many scholars are still clinging to printed information resources due to fear of computer failure, lack of technological skills, and computer storage space limitations<sup>92</sup>.

However, as majority of scholars have come to accept that online information resources have come to stay, many of them have started to adopt standardized systems of organizing their information resources. Researchers and other information user are building incredibly complex digital collections that are supposed to be shared depending on their individual scholarly interests. However, contemporary researchers are aware that the information materials they have retrieved from various online databases may be useful to other researchers. They are also aware that their peculiar information organization systems can make it difficult to share the resources. This has led to the use of citation management tools such as Sotero, Mendeley, Endnotes etc. to assist with organizing and sharing online information resources<sup>93, 94</sup>.

### **2.1.3 The Concept of Digital Competence**

Digital literacy is a concept that have seen global attention since especially at the turn of the century when digital technology became the bedrock of the global economy and society. Globalisation has ensured that no individual alive can totally escape the large of digital technology. It has come to the state that the knowledge of how to manipulate and interact with digital devices has risen from a state of luxury to become something linked to human survival. Digital competence has become essential tool in

education, healthcare, governance and research. It has even been recognized as a tool for poverty alleviation and the reduction of the gap between the developed and developing countries of the world<sup>95</sup>. However, as popular as the concept of digital literacy skill is, experts across the world struggled to provide a unified definition for it. This is not unconnected to the fact that technology and its application in various areas of human endeavor has kept evolving over the years. Indeed, the United Nations Educational, Scientific and Cultural Organisation (UNESCO) admitted that it is difficult to categorically state the components of digital competence as the skills keep expanding regularly<sup>96</sup>. Nevertheless, the need to evaluate and design appropriate strategies to develop digital competence has led to various efforts to define the concept.

One of the most popular definition came from an organization concerned with the development and evaluating digital literacy in adolescents. The organization defined digital literacy as “the ability of an individual to utilise computer systems for purposes such as; research, information creation and communication in order to participate effectively at home, at school, in the workplace, and in the community<sup>97</sup>. This definition clearly identified, research, information creation and information communication as key digital competence. Other definitions also highlight different skills. For instance, another definition of digital literacy presents it as the capacity to make use of digital devices to safely and appropriately access, manage, interpret, integrate, communicate, evaluate, and produce information for work, education, and business purposes. It encompasses competencies known variously as computer literacy, ICT literacy, information literacy, and media literacy<sup>97</sup>.

In line with this, digital literacy is defined as the capacity to use digital technology, communication tools, and networks to acquire and assess knowledge, connect with

others, and complete practical activities. It is also characterized as the ability to use digital tools securely and effectively for learning, collaboration, and information creation. In addition to the complexity regarding its definition, digital literacy as an embodiment of the knowledge, skills and attitudes required for thriving and succeeding in a digital society is also known by many other terms such as ICT literacy, media literacy, new literacy, digital competence and so on. The definitions that have been given to each of these related concepts have bear close resemblance to each other but each of the definition usually left something out which renders them ineligible as an umbrella term for digital literacy. Despite the fact that different definitions of digital literacy have been propounded by scholars, the central focus of all of them is on the information processing and retrieval utilizing new technologies, as well as communication and content development using ICTs.

This was further reinforced at the 2013 conference of the International Computer Literacy and Information Study (ICILS). Participants at this conference outlined the constructs of digital literacy into two main categories which are; information collection and management, information creation, and information sharing. Both of these require two main skills; information literacy and media literacy. The two categories of digital literacy were later expanded to four categories encompassing eight different components<sup>96</sup>. The four categories and their components are basic computer skills comprising computer use foundations and computer use norms; information gathering comprising: information access, assessment, and management, information production comprising information transforming and creation. The fourth is digital communication which is made up of information sharing and ethical use of information<sup>98</sup>. However, there are others who believe that digital literacy extends beyond information retrieval and information use.

In order to reconcile all the various conceptualizations, the European Commission Science Hub introduced a wider concept; digital competence. This 'new' concept encompasses all the skills that have been used to describe literacy. Also, in the absence of a definite scale for digital literacy, the organization launched the Digital Competence Framework (Digi Comp) to both outline the constructs of digital competence and also to provide a scale to measure digital competence. Scholar have examined the constructs from both digital competencies and digital literacy to identify their areas of divergence<sup>98</sup>.

It was discovered that digital literacy is a stepping stone to digital competence because it includes the abilities required to become digitally competent. Digital literacy is a set of abilities that enables users to retrieve, assess, store, produce, present, and exchange information, as well as interact and engage in collaborative networks via the World Wide Web. Digital competence, on the other hand, as one of the eight essential competencies required for lifelong learning, extends beyond the digital competence to include a strong emphasis on attitudes and mindset. This means that digital competence has added attitude to the two major skills in digital literacy; information literacy and media literacy<sup>99</sup>. However, digital literacy and digital competence refer to the same concepts.

This is shown by the development of the Digital Competence Framework (DigComp) by the European Union and its subsequent enhance by UNESCO to guide its evaluation of digital competence across the world<sup>100</sup>. The framework, nicknamed DigComp outlines the knowledge, skills and attitudes that constitute digital competence. The framework outlines five comprehensive constructs. These constructs include information and data literacy, communication and collaboration, digital content creation, digital safety, and problem solving<sup>101</sup>. Each of the five constructs

have applicable metrics to measure the exact skills expected of a digital literate person. In addition, each of the metrics is measured in three dimensions representing the level of competence with dimension be the lowest.

For instance, information and data literacy dimension include the ability to properly state information needs, locate and retrieve online information resources in various formats, evaluate information sources and contents. It also includes the ability to store, manage, and organise online information resources. The second construct is communication and collaboration. It involves using digital technologies for interaction, communication, and cooperation while taking into account generational and cultural differences participation in society through both public and private digital services, as well as active citizenship to control one's online reputation, identity, and presence

The third construct is digital content creation. The skills here include the ability to produce and edit digital contents; to enhance and incorporate data and content into a body of already existing knowledge while being aware of relevant copyright and licensing laws and the ability to user appropriate keywords and commands when using a computer system. Safety is the fourth construct. It covers the ability of information users to protect their privacy while using digital devices and interacting on networked systems; the ability to create safe passwords and other data/information protection protocols as well as the presence of mind to avoid cyber bullying but to use digital tools in ways that might promote inclusion and social well-being.

The last construct is problem solving. It involves the ability to trouble shoot computer and information systems. Detecting problems and proffering useful resolution, are all aspects. Problem solving also include the ability to keep up with development in the digital world in order to anticipate and be ready to change. Most importantly, problem

solving involves being able to use digital systems to create innovative solutions to personal and societal challenges. It involves the creation of services and products that can meet particular needs<sup>102</sup>. All these are in the first dimension with more advanced skills included in the second dimensions. The third dimension also incorporate attitude which is considered in the framework as an important element in sustained, lifelong learning.

Although it is believed by European scholars that the DigComp framework can be applied to everyone around the world due to its comprehensiveness, the UNICEF was of the opinion that the competencies listed and the expected skills are more suitable for developed Western countries with appreciable level of technological advancement. Although the EU data in 2016 showed that forty percent of European adults lack digital literacy, the opportunity available to acquire digital competencies cannot be compared what is being by people in the developing world such as Africa and Asian. In line with this, the UNICEF built on the DigComp to create a digital literacy framework that can be applied to all citizen globally.

The Digital Literacy Global Framework (DLGF) took all the constructs itemized in the DigComp, i.e.; information and data literacy, communication and collaboration, digital content creation, digital safety, and problem solving and added a new one; devices and software operations. It added career related competencies to measure the ability of individuals to used technologies in the contest of their chosen professions. The DLGF recognized that some people, especially in the developing lack access to basic amenities and lack even the basic skills. So it designed a framework that will provide a sense of belonging to everyone. This is done by showing that even the most basic or marginal increase in digital literacy is to be acknowledged.

The capacity to use fundamental computer hardware and software is adequately demonstrated by the construct, devices, and software activities. In essence, the construct assesses a person's aptitude for recognizing and utilizing hardware instruments and technology. to locate the digital content, data, and information required to use software applications and technologies The capacity to recognize and comprehend the data, information, and/or digital material required to use software tools and technologies is also included. In essence the construct measures basic computer skills. The importance of this can be seen in studies conducted in Nigeria and other African countries.

Researchers in Pakistan reported that many legal practitioners are still relying on printed information resources due to lack of basic ICT skills which they need to interact with information systems<sup>103</sup>. Similarly, a study in Thailand revealed that even information professionals often lack the adequate level of digital literacy required to carry out the tasks satisfactorily<sup>104</sup>. Similarly, study in Indonesia showed that students in the country have litter opportunities to acquire digital competence. This shows the reason why the UNESCO framework is more applicable for a global audience than the European framework.

## **2.2 Theoretical Review**

### **2.2.1 The Technology Acceptance Model (Davis, 1989),**

The Technology Acceptance Model (TAM) was developed by Fred Davis in 1989. It is one of the earlier models developed to measure the acceptance and use of technology. This model holds that, a computer or information system's likelihood of being adopted and used by its intended audience depends on two factors namely, the system's perceived usefulness, and the system's perceived ease of use. Perceived ease

of use (PEOU) is defined as the perception of a potential user regarding how easy it will be to use a particular technology and PU refers to the extent to which individuals believe how useful the technology would be to the intended user<sup>105</sup>.

The Technology Acceptance Model (TAM) posits that people's attitudes and behaviours toward new technologies are shaped over the course of a three-step process beginning with a cognitive response (perceived ease of use and perceived usefulness) and progressing to an affective response (attitude toward using technology/intention). TAM shows the conduct, as the outcome predicted by perceived ease of use, perceived usefulness and behavioural intention. For legal practitioners, the confidence that an online information resources will provide desired results and the assurance that the process of retrieving the information will not be time-consuming are both captured by the notion that the e-resource is "easy to use" and "useful". According to a follow-up study, behavioural intention might be substituted by the attitude toward behaviour, which is an emotive evaluation of the probable consequences of the conduct. When the emotional reaction is strong, the probability of the behaviour increases. That is, when a legal practitioner has preference for e-resources, they are more likely to make use of it.

The effect of perceived usefulness on actual use might be direct, which highlights the relevance of the variable in predicting conduct. Although perceived ease of use does not alter use behaviour directly, it underlying the effect of perceived usefulness. It follows from the model that the more the expectation that an application would be user-friendly, the greater the likelihood that the user will view it as beneficial, and the greater the likelihood that this will promote the adoption of the technology. The development of the model and measurements for technology acceptability have made substantial theoretical contributions and have had a tremendous practical utility.

Due to a lack of validated subjective measurements, evaluating users' motivation to embrace a variety of technologies has previously been impossible before the model for testing IS usability was applied<sup>106</sup>. The establishment of constructs which showed a strong and substantial link with use behaviour made it feasible to comprehend the cognitive and affective elements influencing the effect of system characteristics on technology acceptance. The basic idea behind the concept was that when it came to technology use, people's intentions to change their behaviour were influenced less by their general outlook on the importance of ideas around the use of technology than by more narrowly focused ones.

In addition, the use of online legal information resources is also measured by metrics such as frequency of use and purpose of use. There are various studies that have relied on data about frequency of use and purpose of use to determine the level of use of online information resources among various user groups<sup>107, 108</sup>. This is premised on the assumption that the actual use of information is different from intention or motivation to use. As can be seen in Figure 1, when legal practitioners have positive perception of ease of use and usefulness of electronic legal resources, it leads to behavioural intention to use in which they are willing to use the resources. The intention must be actualized by actual use which is demonstrated by regular use of electronic legal resources for various purposes relating to their professional works<sup>109, 110</sup>.

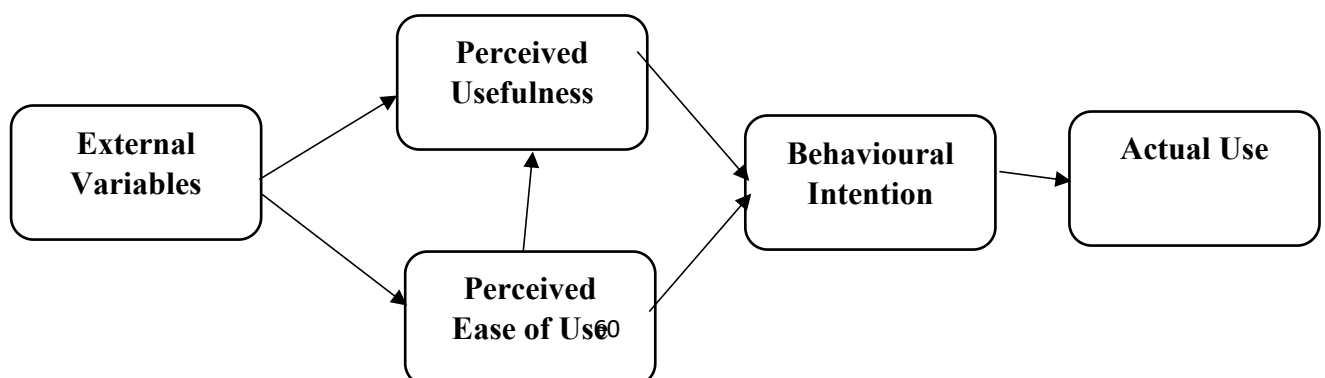


Figure 1: Technology Acceptance Model (source: Diop et al., 2019)<sup>105</sup>

### **2.2.2 The Scholarly Primitive Theory by John Unsworth (2000)**

The scholarly primitive theory was proposed by John Unsworth in 2000. It holds that there are basic functions common to scholarly activity across disciplines when dealing with digital information systems<sup>110</sup>. The theory explains that all researchers, irrespective of their discipline engage in some activities when they are carrying out their research online. The theory provides a list of activities that which were called 'primitives'. These scholarly primitives included discovering, annotating, comparing, referring, sampling, illustrating and representing. The theory suggests that all these activities are essential to success in information retrieval. The theory was later expanded in 2009 by Palmer, Tefera and Pirmann. The scholars identified five core scholarly activities and their primitives. The activities identified include information searching and collecting. Information searching include; direct searching, chaining, browsing, assessing while information collecting include; gathering and organizing.

Direct search occurs when the researcher already has a particular subject or topic in mind. In this case, the researcher has to supply the information system with keywords related to the subject of interests. Familiarity with the controlled vocabularies in a particular field is important to effective information retrieval. However, there are information systems that allow users to search by natural language. Direct search by legal professionals happens when they know the exact law and statute or judgement that they need. There are even databases such as the Law Pavillion that index law reports and various aspects of law they carry. This skill required for legal

professionals in this case is therefore to identify the right databases that can provide the information they need. However, chaining may be needed when direct search does not provide enough information.

Chaining refers to the process of using citation to bring together related information or to expand a search in order to obtain all the needed information. There is backward chaining and there is forward chaining. Backward chaining is when a legal researcher traced the precedents and justifications mentioned in a case to provide more context to a new argument. Forward chaining is when the same researchers uses those who have cited a particular, law, case or judgement to build a new argument. Chaining ensures that all information related to a particular case is gathered through a relevant base resource. The information search may also start on a blank slate which calls for browsing.

Browsing is the activity engaged in when the information seeker has no specific information need or is not unsure of the specific information needed. Browsing is therefore a journey of discovery for legal professionals in which they go through the contents of an information system to discover what is useful or to get an idea of a specific research. Browsing can be done to understand basic concepts or subjects that are not clear to the information seekers yet. In browsing, as it is in order activities, information assessment evaluation is essential.

Assessing as a part of scholarly primitive means to evaluate information which is the act of critically appraising the dependability, validity, accuracy, authority, timeliness, point of view of the information source a scholar is using. The ability to assess the information sources and information resources contribute to the quality of research and save the time of the researchers. Assessment complete the trio of activities under

information search which ensures that the information gathered is relevant. After assessment, the next stage is information gathering.

Information gathering is important because online information resources are often not permanent. Something found online today may not be there in the next moment. Researchers therefore build personal collections that will remain easily accessible to them over the long term. Researchers are often seen as collector and, despite the ubiquity of online resources, they crave convenience and assurance that the information resources they found useful will remain accessible to support sustained consultation for the present and future information needs. As a result, researchers would download various formats of information resources from the information systems to their own devices. However, this information downloaded can often grow to become a very large collection which would be difficult to use unless properly organized.

Without proper organizational skills and techniques, the information resources gathered by legal practitioners may be unusable as they are all lumped together with no way of knowing which is which. Some may even be stored on different location on the legal practitioners' devices. This makes it imperative for legal practitioners to devise organizational systems and tools for storing and managing information resources obtained online. Information organisation is therefore an integral part of information retrieval skills. legal practitioners who are unable to properly organize the information they have gathered may find the use of online legal resources difficult and may abandon the use after some time.

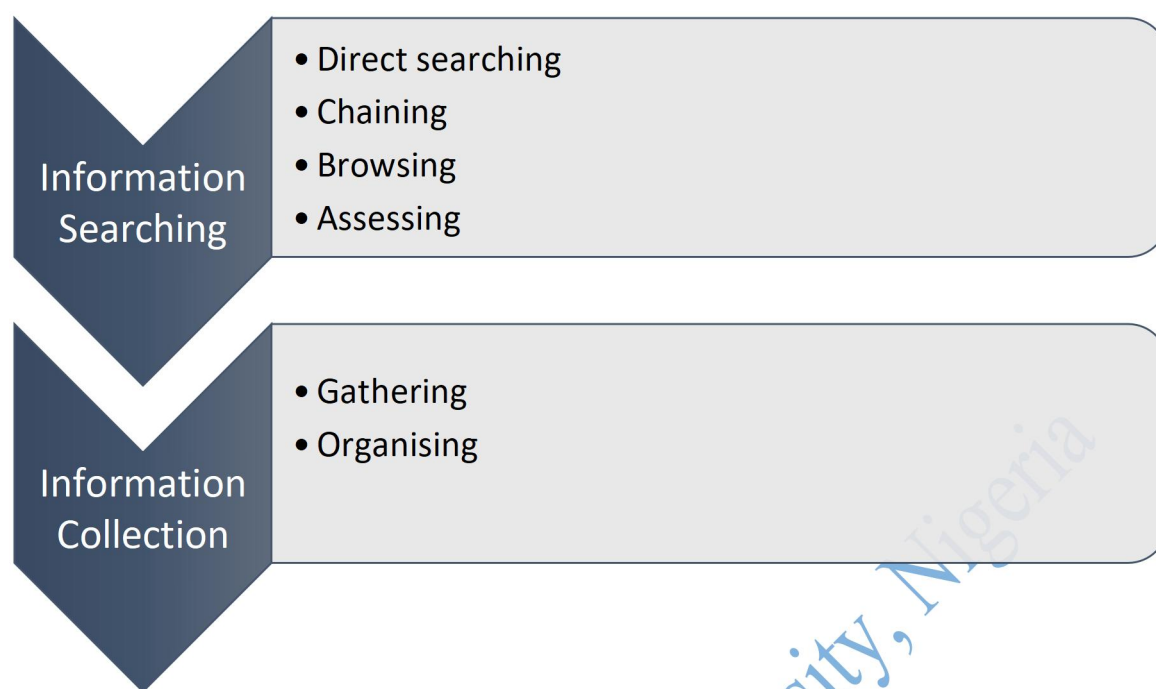


Figure 2.2: Scholarly Primitives (Adapted from: Unsworth, 2000)<sup>110</sup>

### 2.2.2 UNESCO’s Digital Literacy Global Framework (2018)

The Digital Literacy Global Framework (DLGF) was developed by the United Nation’s Education, Scientific and Cultural Organisation (UNESCO) in 2018 as a tool to measure digital literacy worldwide. It built on the Digital Competence Framework for Citizens that was developed by the European Commission (DigComp 2.0)<sup>107</sup>. The Digicomp identified the constructs to include information and data literacy, communication and collaboration, safety, and problem solving. Because the DigiComp was developed for European countries with advanced technology and better opportunities for citizens compared to the rest of the world, it was considered inadequate as a global measurement. The DLGF was therefore designed to be customization framework for defining digital literacy worldwide.

The DLGF retained all of the constructs of the DigiComp but in a simplified manner. It also adds “Devices and software operations” which basically focuses on basic ICT

skills and “Career-related competences. Therefore, the constructs of digital literacy according to the DLGF are; Devices and software operations, information and data literacy, communication and collaboration, safety, and problem solving, and career related competencies. All of these are meant to be exhaustive and open to adaptation as required by specific situations. The developers of the DLGF are aware that Digital literacy needed to succeed varies according to region and job demands<sup>107</sup>.

For the current study, the focus will be on metrics such as device and software operation, information and data literacy and digital content creation. All of these are directly related to the subject of the study which is the use of online information resources. As pointed out by a scholar, legal professionals do not have to become tech experts in order to use online information resources. Having the basic and functional skills that helps them to identify, retrieve and use the needed resources are enough<sup>111</sup>.

Device and software operation, according to the DLGF, has to do with the ability to operate the computer and related devices as well as the ability to use relevant software. For legal professionals, this means the ability to use computer desktops, laptops, tablets and other mobile digital devices to access information systems and use other relevant software to retrieve information resources. It also involves being aware of where to get information to assist in the use of computer hardware and software. Dealing with information however, require information and data literacy.

Information and data literacy covers the ability to clearly communicate information requirements and be able to identify and retrieve digital data, information, and content. It also encompasses the ability to assess the relevance and content of information sources and information resources. Information and data literacy also extent to the storage, managing, and organisation of digital data, information, and material that have been identified and retrieved for use.

The third construct is digital content creation. This involves the ability to develop and refine computer-based media. It also includes proper grasp of copyright and other relevant laws guiding the use of digital information and the ability to create, synthesize and integrating information and content into an existing body of knowledge. This also applies to legal professionals. It means their ability to create legal document from online information resources and save them in the appropriate format. Legal professionals are expected to be able to bring information together from diverse online information resources and create a coherent, meaningful and useful resources to expand the frontier of knowledge.

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**Figure 2.3: The Digital Literacy Global Framework (DLGF) (Adapted from UNESCO, 2018)<sup>107</sup>**

## **2.3 Review of Empirical Studies**

### **2.3.1 Information Retrieval Skills and the Use of Online Information Resources**

Online information resources are domiciled in digital information systems. Even the most accessible information system requires some basic skill from the information seeker. The possession of such skills may make it easier for information seekers to continue using a particular information system. Researchers have thus examined the role of information retrieval on the use of digital information resources. A scholar examined the factors affecting the use of online information resources in Nigeria to determine the influence of information retrieval skills on the use of electronic resources among information professionals in Southwest region of Nigeria found that information retrieval skills of the users have a significant influence on the use of utilization of online resources. among the respondents<sup>112</sup>.

The importance of information retrieval skills to the effective utilization of online information resources was demonstrated in a study conducted in Kenya. This study employed a mixed methodology design, which enabled the researcher to collect and analyse both qualitative and quantitative data simultaneously, resulting in a mixed technique. Conclusions were drawn from the pooled data, and extrapolations were made. The study population included librarians, research supervisors, and postgraduate students. Participants were chosen for the study using both systematic and purely random sampling techniques. The research instrument, which is a questionnaire, was administered separately on the different categories of respondents. The results of the study showed that graduate students' scholarly information management was directly related to their level of information retrieval skills. In addition, the data showed that there is a statistically significant connection between the information retrieval skills and the use of online information resources.

A scholar from India examined the level of information retrieval skill among Social Sciences lecturers and how this affects the information use. The study adopted a descriptive survey method. The population of the study includes all full-time and adjunct lecturers at the Centre for Economic and Social Studies, India. Convenience sampling procedure was adopted to select 128 respondents. The instrument for data collection was questionnaires which were personally administered by the researcher. The study found that most of the respondents prefer online information resources, and conference papers. It was also found that the respondent prefers getting information from online sources such as internet search engines, academic libraries and other sources such as bookshops, friends, etc. Seeing that the respondents prefer online resources, the researcher examined their information retrieval skills.

The study found that most of the respondents are well-versed in keywords selection while the rest have low level skills in conducting keywords search or in choosing the right keywords to begin their search. In the same vein, it was found that only 34% of the respondents have proper understanding of Boolean Operators as a search strategy while the others lack this skill. In addition, only a few of the respondents are aware that majority of the information resources they use in their research came from scholarly databases which indicates that they are still using crude information retrieval tools. The research concluded that the respondent cannot make effective use of online information resources unless they boost their information retrieval skills. It was therefore suggested that postgraduate students should be encouraged to make greater use of scholarly resources, both in print and online by providing information literacy skills training<sup>113</sup>.

In Nigeria, a group of research examine how information retrieval skills of undergraduate library users can be improved through users' education. The study found that majority of respondents are proficient at using the library catalogue to find what they need, and they also have a high rate of proficiency when it comes to finding materials on the shelves. However, it was found that the have low skill in conducting keyword searches, using search engines, and making efficient use of the library's databases. This has implication for the use of online resources in the library as it has been shown that there use of library resources general is low<sup>114</sup>.

In a related study, researchers conducted a comparative analysis of information retrieval strategies by groups of professional. The study is a survey research which focused on legal practitioners in the United Kingdom (UK). The researchers used a structured questionnaire to collect data a sample of professionals such legal practitioners, recruitment experts, and healthcare information specialists. The study

found that there is a commonality between the requirements and difficulties of these professions. In particular, apprehension regarding the use of relevance ranking, a continued penchant for constructing queries as Boolean expressions, and the requirement to manage, organize, and reuse search tactics and results.

The study also found that legal practitioners are more advanced in information retrieval skills than the other professionals as they took less time to retrieve specific information than others. The finding also shows that difficulties in retrieving information often discouraged people from continuous use of online information resources<sup>115</sup>. The implication of this is that the information retrieval skills of professionals can determine the level of use of online resources.

Researchers in Namibia also examined the use of online information resources by law lecturers at the University of Namibia (UNAM). The study's goals were to ascertain how well they were aware of and how they felt about the plethora of electronic resources (e-resources) available to them, as well as the difficulties they encountered when trying to use them. The population of the study included all law lecturers in the institutions. A questionnaire and a semi-structured interview guide were utilized for both quantitative and qualitative data collection. The study found that majority of the law professors were familiar with the available online information resources in the library albeit some were not aware of the newly subscribed international law databases. The results also showed that professors used e-resources for research, publishing, and teaching, but that they had trouble using them due to a lack of training and poor searching skills<sup>116</sup>. The author concluded that understanding the influence of information retrieval skills and other challenges on the use of online information resources can help librarians to develop appropriate intervention.

Researchers have also observed that the research output of law professors is likely to be affected by the accessibility and utilization of numerous legal information resources, both online and offline. The ability to exploit many avenues of information retrieval increases the potential for idea sharing and synthesis. In line with this, a study examined the use of online information resources by law educators in Nigeria. The descriptive survey methodology was used for the study. The study sample consisted of five hundred and seventeen law lecturers who were chosen using a multistage sampling process from a population of nine hundred and five at institutions across Nigeria's six political regions. Quantitative data for the study was gathered using a self-created questionnaire. Descriptive statistics were used to analyze the study questions, and the hypothesis was tested using the Pearson Correlation Coefficient and Analysis of Variance (ANOVA) at the 0.05 level of significance.

The study found that the lecturer made of online information resources daily, weekly, monthly, quarterly, while a few of them reported that they never used online information resources. However, the frequency of use of law-related databases among the law lecturers is low. The lecturers were found to use these databases regularly. However, nearly half of the lecturers reported that they have never used online databases. This can either be too due to lack of awareness or information retrieval skills. The study finding confirmed that frequent use of information resources is positively correlated to research productivity<sup>117</sup>. The implication is that those who are unable to retrieve adequate and relevant information resources may be less productive. The effect of information retrieval skills on the use of information resources is not limited to professionals as it was also found to affect students.

A study examined the effect of students' information-finding abilities on their use of electronic resources in Nigerian university libraries. The study was motivated by the

fact that undergraduates rarely make use of library resources despite the abundance of materials available in Nigeria's university libraries. The population of the study was derived from ten Nigerian universities. The study used a descriptive research methodology and a multistage sampling technique. From the universities, three departments were chosen on purpose, while the remaining nine departments were chosen at random from within the faculties.

The study tested a hypothesis at 0.05 level of significance to find the influence of information retrieval abilities on electronic resource utilization by the students. The study found that undergraduate students have low information retrieval skill in three key dimensions of information retrieval namely, information literacy, operational skills, strategic skills all of which were below the criterion mean. It was also found that the use of electronic resources for research among the students was substantially connected with their information retrieval skills. This means that the low level of information retrieval skills will only result in low level of online resources use among the students.

In a related study, researchers from Ogun state, examined the information retrieval abilities and their usage of library information resources. The study adopted a correlational survey research method. All first-year students of Tai Solarin University of Education in Ijagun, Ogun State, made up the study's population. 800 students from across the university's five faculties were selected as the study's sample using a stratified selection method. The data was analysed using a frequency distribution table, mean, standard deviation, and percentage.

The results showed, among other things, that undergraduate students have very little competence in using search engines to retrieve information. It was found that 91% of them have no idea about the organization of the OPAC or the full element in an

abstract. In addition, only a few of the students demonstrated the ability to use Boolean logic while searching for information. Overall, the researcher rated the information retrieval skills of the students as average with only a few of the students were judged to possess high information retrieval skills. Undergraduates' information retrieval abilities were found to be significantly related to their use of library information resources. The study recommended that skills and tactics for using Internet search engines, including sophisticated search strategies, alert services, Boolean operators, and Truncation, should be incorporated into the "Use of Library" curriculum for undergraduates<sup>118</sup>.

Researchers in Kenya investigated the perceptions of undergraduate students regarding their own information retrieval skills when it came to using online databases and other digital repositories at Maseno University. The study adopted a descriptive survey method. One thousand and one undergraduates from all of the schools on the Campus at Maseno University made up the study's population. A structured questionnaire was used as instrument for data collection.

The results showed that the vast majority of students felt they had adequate skills in knowledge retrieval. In addition, majority of students reported using online libraries and databases frequently. This demonstrates the connection between information retrieval abilities and the utilisation of online information resources. Many students, however, remarked that the study's presentation of information retrieval techniques left them feeling inadequate, particularly with regards to Boolean operators (OR, AND, NOT) and truncation strategies (\$, \*, +). The research suggested that information users could benefit from enhancing their retrieval skills and search experiences by being exposed to training and continue practice<sup>119</sup>. This is supported by a related study conducted in Nigeria.

A study conducted by scholars in Benue State Nigeria examined the use of online information resources by undergraduates and the relationship between students' information retrieval abilities and the use of online information resources. This study also adopted a survey research method. The study population included 200-level undergraduate library users in a public university. Multistage sampling was used to select the study's sample size of 376 registered undergraduate's library users. The study found that undergraduate students in Benue State primarily used e-journals and online resources as their primary e-resources at university libraries.

The study also found that the major barrier against the effective use online information resources among the students is information retrieval skills. The study found that, while the students were able to define their specific information needs, interact with database interfaces and locate information databases, most of them have difficulties in downloading articles, evaluating search results, navigating from one link to another to retrieve needed information, formulating searches using combination of keywords or concepts, using OPAC to search for information resources.

This means that even the most technology savvy students also have challenges in information retrieval which affects their use of online information resources<sup>120</sup>. The impact was felt on their use of electronic information resources as the results showed low use of e-books, online Databases, CD-ROM databases and OPAC). the students therefore rely on Internet sources which they can easily find and use in their research. However, the fact that they lack the skills to evaluate the information they encounter online means that they can easily be misled to use wrong information. Information retrieval skills can also affect the use of online resources among professionals such as legal practitioners.

A researcher examined the familiarity of lawyers in a private law firm with various information-gathering techniques to gauge their information retrieval skills. The study was survey research. Total enumeration was used as the study population consisted of thirty legal professional. A structured questionnaire was utilised to gather information. Measures of frequency, percentage, and mean were used to examine the information gathered in response to the research questions. The findings showed that legal professionals are well-versed in using information retrieval tools such as search engines, and OPAC, but are less informed about the use of bibliographies and abstracts. This was reflected in their level of information retrieval tools. It was found that majority of them use the prefer the physical library. As such, they prefer the use of printed Indexes, Shelve guides and Bibliographies. Any electronic information resources they need is sourced through Search engines. The use of the OPAC is the lowest which means that the lawyers are unable any information systems that requires more than basic information retrieval skills<sup>121</sup>.

Although the researcher expressed satisfaction that the legal professionals are able to use the physical library, it is also important that the are skills in the use of various law-related databases that grant access to current and in-depth information for quality legal research. This is supported by legal scholars who observed that legal professionals can retrieve almost all the information they need from digital law libraries. The author pointed out that robust retrieval algorithms have emerged that can combine different sources and carry out more efficient search operations. It was therefore submitted that information retrieval skills are necessary for legal professional both presently and in the future, to make the most of digital legal resources available online<sup>122</sup>. As it stands, the lack of information retrieval skills is

preventing the legal practitioners from thinking of using online information resources. Indeed, the challenge for legal professionals start from their education.

Researchers from northern Nigeria examined various challenges affecting the use of legal information resources by postgraduate students in Federal universities in northern Nigeria. The study was conducted utilising a cross-sectional survey design and a quantitative research methodology. A total of 1,348 advanced law students were included in the research from the libraries surveyed. The study's sample size was determined using the simple random sampling equation. Therefore, 308 graduate law students were selected as the study's sample size. Information was gathered through the use of a questionnaire.

The study found that although the students were aware of the usefulness of electronic tools and online legal databases, they often face challenges such as inadequate infrastructure for accessing materials electronically, insufficient computers, and intermittent power supply. In addition, some of them also lack the necessary information retrieval skills to make use of the online resources. As a result, they rely on hardcopy legal information resources. The study indicates that the quality of legal researches and academic excellence in the legal profession may be negatively impacted since postgraduate law students in federal institutions of northern Nigeria have not yet fully enjoyed the huge electronic legal information resources<sup>123</sup>.

### **2.3.2 Digital competence and the Use of Online Information Resources**

As technology and information resources, particularly online information resources, permeates every aspect of scholarship, digital literacy is becoming increasingly important. Experts have observed that, as the use of online resources in every aspect of intellectual endeavor become a norm, information users are required to acquire the

requisite digital literacy abilities<sup>124</sup>. All categories of information users are now expected to be digitally literate in order to function well in an information society that is transitioning from print to digital resources. As a result, digital literacy becomes critical, because the use of digital resources is dependent on digital literacy competencies.

In today's fast developing knowledge culture, information literacy, a key component of digital literacy has become one of the most important skills. This is owing to the fact that information users with research information needs will use digital resources if they have the skills required for effective use. Although a lot of studies have been conducted on the concept of literacy, researcher are still making efforts to promote the development of digital competence through with the goal of equipping information users with digital tools to advance learning, keep up with evolving technologies, and become global digital citizens<sup>125, 126, 127</sup>. While digital literacy is seen as a useful life-skill for surviving in the information society, it seen primary as a skill needed to get the right information to make important life decisions and to acquire knowledge. The focus of research has thus been mainly on the role of digital literacy in the use of information and information systems.

Researchers in Pakistan explore the role of digital literacy education in boosting the use of online information among students. The purpose of this paper is to gain insight into the students' level of technical proficiency in the areas of utilising database resources and looking for information online. The research also looks at the library's administration and students' academic interactions regarding emerging technologies, as well as the learning habits of students who have extensive digital exposure in order to evaluate the training contents and designated instructors on digital literacy education.

The study was a social survey research with a sample comprising 1,500 students across Pakistan. A structured questionnaire was used for data collection. Descriptive statistics were used to examine gender disparities in student populations. The findings showed that there is a signification of digital competence on the use of database resources and access to networked information via Web browsing ( $p > 0.05$ ). In addition, the results showed that students' exposure to digital media is not the driving force behind their growth in technological competence, but rather an encouraging one. It was also established that students' proficiency with learning technologies greatly benefits from their libraries' incorporation of such tools<sup>128</sup>.

While some scholars have examined the impact of digital competence as a whole on the information retrieval and use of online information resources, others have chosen to examine various construct of digital literacy. That is, they have focused on various skills and competencies that come together to make digital competence. However, on these skills that make up digital literacy, scholars have preferred many constructs. The conventional assumption is that digital literacy is made up of information literacy skills, basic computer skills, and computer attitude<sup>129</sup>. Others have added online safety, ethical use of information, and information use to meet specific needs<sup>130</sup>. The result is a body of literature with different approach to the same issue.

In line with this, a group of Nigerian researchers examined the influence of information literacy on accessing and using digital libraries. The study was motivated by the fact that retrieving information from online databases requires some skills. The study adopted a quantitative methodology to conduct a descriptive survey. The study sample consist of 115 postgraduate students from three different institutions. According to the data analysed in the study, one's ability to make use of digital libraries depends on their level of information literacy throughout its many

dimensions. The results also showed that majority (65%) can critically evaluate information resources(32.2%) evaluate information sources or systems (58%) Similarly, (55%) of respondents indicate that their use of electronic information resources is influenced by their ability to locate information in multiple sources<sup>131</sup>. The findings point to a correlation between information literacy and the use of digital libraries and online information resources. The effective and efficient use of electronic information resources depends on students having the information literacy abilities necessary to find, evaluate, and use information effectively and efficiently.

Similarly, researchers in India evaluated the use of information resources by Ophthalmologist in the country. The findings suggest that respondents had an average knowledge of how to use the internet, especially in terms of the breadth and depth of information they can access. In particular, respondents under the age of 35 log on every day. The vast majority of respondents use open-access journals, while only a small percentage of respondents from government and private/trust organisations subscribe to more than a handful of electronic publications. The most popular gadgets among ophthalmologists for accessing electronic resources are smart phones and tablets, followed by computers. In order to combat ignorance, the study author recommended implementing orientation and information literacy initiatives. The research highlights the importance of providing access support, selectively disseminating information, and pinpointing the source of the issues before attempting to fix them. Moreover, the researcher stresses the need of libraries and ophthalmology associations in making good use of digital and online resources.

Similarly, researchers explored the impact that information literacy skills on medical students' utilisation of information resources in Lagos state. A survey research method was used for the study. A self-designed questionnaire was used as the primary data

collection instrument. Descriptive and inferential statistics, as well as Pearson Product Moment Correlation (PPMC), were used for the purpose of data analysis. The study found that the students frequently used online information resources in the library because majority of the found the online information resources easy to use. Study further confirmed that information literacy skills has a positive significant relationship with the use of information resources among the medical students. Based on this the authors concluded that the use of online information resources, an indeed, all library information resources can be enhanced if the library implement programmes to enhance the information literacy skills of library users<sup>132</sup>.

The influence of information literacy skills on the use of online information resources was also explored among lecturers in an Indian university. The study used a survey approach, with a structured questionnaire administered to lecturers in the faculty of engineering to collect data on their perspectives on the importance of digital information literacy. The responses showed that majority of the lecturers used internet daily to search for information and 42% of them used the internet facilities in the library where they access online journals and scholarly databases. Although majority of them used simple keywords to search for information, they have developed the skills to evaluate relevant and quality information.

The study however extended the study to the realm of digital literacy with the inclusion of attitude to online information resources in the metric. It was found that the respondents demonstrated positive attitude towards the use of online resources. Majority agreed that online digital resources provide access to current up to date information (78%), a wider range of information (88%) quicker access to information (79%) and is easier to use than printed resources (68%)<sup>133</sup>. With this, it can be said

that digital literacy is closely associated with the use of online information resources. This assumption has also been explored as it relates to legal practitioners.

Researchers in Pakistan conducted a study titled "Information Literacy Skills of Legal Practitioners in Khyber Pakhtunkhwa, Pakistan: An Empirical Study. The study attempted to investigate the information-handling abilities of lawyers in a region of Pakistan. This quantitative research uses a random sampling technique to select the study participants. The population of the study included 254 practicing legal professionals in Dera Ismail Khan. A structured questionnaire was used to collect empirical data. The was analysed using the SPSS software. The findings showed that lawyers in Dera Ismail Khan, Khyber Pakhtunkhwa, are generally able to identify and comprehend relevant data. Many attorneys are comfortable communicating with clients via both paper and digital means. However, most respondents still rely on traditional information retrieval tools such as the library catalogue and majority rarely use online resources to find needed information. When the have to use online information resources, respondents often have to seek help form others more skilled in information retrieval (Mean=3.8). However, majority of them are able to identify information needs.

In addition to these, they lack Boolean operator expertise for online research and they also lack knowledge of Drop Box and cloud computing for data exchange. The researchers concluded that lawyers can gain digital competence through workshops and seminars. It was also suggested that legal professionals should work with librarians to improve their digital literacy abilities. Like others studies, this study has also gone beyond the information literacy to include media literacy which is an aspect of digital literacy<sup>134</sup>. However, this study, like many others have not emphasise on

information ethics and online security, both of which are part of the UNESCO's digital literacy framework.

In another study conducted in Punjab, Pakistan, researchers focused on the level of information literacy among practicing lawyers. The study is also a cross-sectional survey study which collected quantitative data from 297 legal profession using a structured questionnaire. The study found that majority of the legal professionals had never received instruction in information literacy. On the other hand, the vast majority of these attorneys felt that information literacy skills were essential to their jobs, particularly when it came to conducting legal research. Due to lack of formal training, the legal professional possess the fundamental information literacy skills but struggled with the more complex aspects. Moreover, the lawyers' IL skill levels may be predicted by their age, practical experience, practising levels, computer literacy, and English language competence. It is certain that the inability to skillfully interact with information systems is affecting the ability of the lawyers to be effective in their profession<sup>135</sup>.

Researchers also investigated the information-seeking behaviours of the legal professional practising at the District Bar in Multan, Pakistan. The participants in the study were all actively practising lawyers, regardless of age group. A structured questionnaire was developed as instrument for data collection. It was found that majority of respondents frequently use the law libraries in order to gain a better understanding of certain legal issues. When looking for legal information, they frequently prefer case law magazines. In sourcing for needed information, they are most likely to consult senior colleagues and used printed resources. It was found that the use of online information resources was low among the respondent.

The legal professionals faced challenges such as lack of law librarians and information literacy trainings. The findings of the survey led the researchers to the conclusion that the vast majority of legal professionals use the District Bar law library while seeking solutions to particular legal issues. The lack of availability of professional librarians and the absence of training programmes for using the law library's resources are two of the most significant challenges they confront in their attempt to use online information resources.<sup>136</sup>

In Nigeria, researchers examined the influence of ICT skills on the use of online information resources in legal research by legal professionals working with various law firms in Lagos State, Nigeria. The study is a survey research which adopted stratified sampling technique in selecting the study sample. This way, 226 legal professionals were sampled out of a population of 377. A structured questionnaire was used for data collection. Findings showed that the majority (70%) but admitted that they are often hampered from using the available resources due to lack of ICT skills. The test of hypothesis revealed a significant positive relationship between ICT competence and the use of online information resources<sup>137</sup>. The study recommends that the law firms should ensure continuous training in the use of ICTs and law librarians should find innovative ways of keeping lawyers abreast of new skills that can aid the use online information resources. This was also echoed in a related study conducted in Nigeria

Researchers investigated the information behavior of legal professionals in Oyo State. The study adopted a quantitative research methodology and used a structured questionnaire for the purpose of data collection. Study sample included 103 legal professional across the state. The study found that the legal professionals needed information for various purposes which included case preparation, the question for

more knowledge and to develop their skillsets. It was found that the legal professionals are aware of the importance of online information sources but they are often unable to make much use of them due to lack of ICT skills.

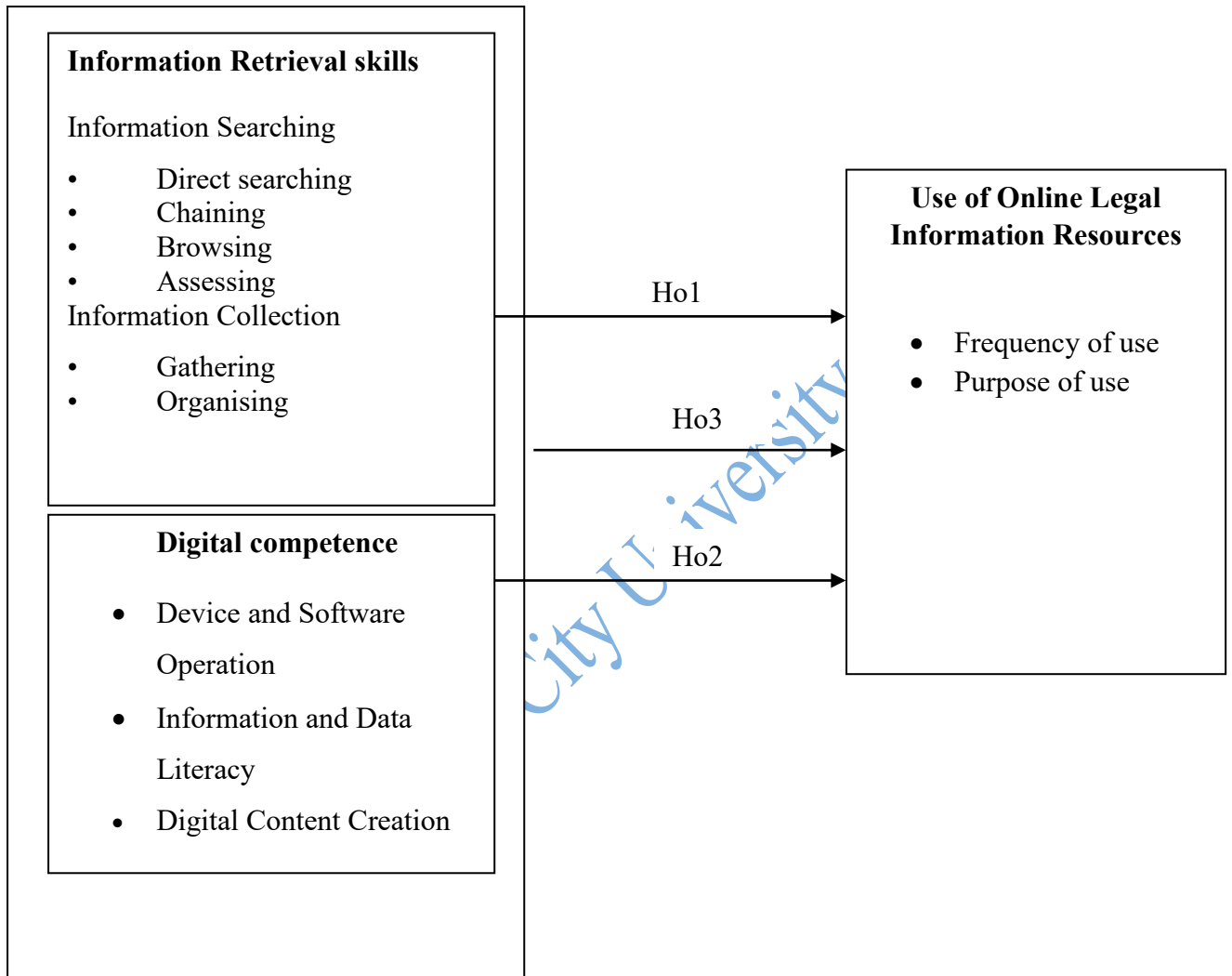
As a results, they rely heavily on printed version of weekly law reports, recent Supreme Court decisions, and client information. Personal experience, textbooks, journals, colleagues, partners, corporate case studies, and court records were the most frequently accessed resources. The researcher concluded that legal professionals can be able to access all necessary information they need by expanding the scope of the legal education curriculum to incorporate ICT and providing better training for lawyers to use digital resources<sup>58</sup>. Because of the suggestion that the ideal place to equip legal professionals with the digital competence they need is the tertiary institution, researchers have examined the use of online information resources by law students and lecturers.

A researchers analysed the use of electronic library at the University of Calabar's Faculty of Law to determine the types of legal information retrieval tools that are available there and how often they are used. The population of study consisted of law school undergraduates and postgraduates. The study's sample included 433 students who were registered law library patrons. A questionnaire with predetermined questions and answers was used to collect information for this study. The results show that although the e-library library contained several of the sampled online access and retrieval technologies, a significant number of the students were unable to use the information retrieval tool and as a result, the online information resources. While the use of online legal information resources is popular among the students, there are still many students who are unable to make use of the due to the lack of ICT skills.

Meanwhile, those with the required skills are making good use of the available resources<sup>138</sup>.

*Do Not Copy, Lead City University, Nigeria*

## 2.4 Conceptual Model



**Figure 2.3: Conceptual Model on the Influence of Information Retrieval and Digital competence on the Use of Online Resources by Legal Professionals**

(Source: Researcher, Conceptual Framework, 2023)

The model outlines the entire variables in the study. The dependent variable is the use of online information resources which is measured by frequency and purpose of use<sup>112</sup>

There are two independent variables. The first independent variable is information retrieval skills. This variable is adapted from the constructs provided by the Scholarly Primitives theory<sup>114</sup>. Information retrieval skills is therefore measured by information search (direct search, chaining, browsing and assessment) and information collecting (gathering, organizing)<sup>112</sup>. The second independent variable is digital competence of the respondents. Digital competence are measures by the metrics adapted from the UNESCOs digital literacy global framework the metrics of digital literacy therefore include; devices and software competences, information and data literacy, and digital content creation.<sup>107</sup>

The model explains the relationship that exist between all the study variables. It shows that the information retrieval skills, demonstrate by the ability to search for and collect relevant information from online sources will affect the purpose and frequency of use by legal professionals. Legal professionals who able to conduct direct search, carry out chaining activities and take the time to browse online information resources will find necessary information that will encourage them to make frequent use of online information resources and for a wide ranging of purposes. It is assumed that legal professionals who lack the ability to do these may be frustrated by the information systems. The led to the development of hypothesis on the influence of information retrieval skills on the use of online information resources. The same goes for digital competence which is also closely linked to the perception of online information resources.

Digital competence such as hardware and software use, information and digital content creations. It is expected that those legal professionals who have these skills would be encouraged to make use of online information resources and enjoy all the benefits derive from using online information resource. The ability to evaluate the

various online information sources and make quick decisions is also relevant to the question of what factors affected the use of online information resources. It is expected that legal professionals who are able to operate hardware and software used in the creation, storage and dissemination of online information resources would be better placed to make effective and continuous use of these resources. In the same vein, when legal professionals possess information and data literacy skills, they are more likely to retrieve and use relevant information from online databases than those who do not possess this skill. The third aspect of digital literacy is digital content creation.

Many documents are now born digital, that is they are produced as 'soft copies'. Legal professionals who are capable of creating digital contents such as text documents are more likely to use online resources as they work on their digital documents such as legal briefs, legal research, affidavits, and other documents relating to the legal professions. The combination of devices and software use, information and data literacy, and digital content creation are therefore working together to facilitate the use of online information resources. As a result, the second hypothesis is raised to determine the influence of digital competence on the use of online information resources.

In addition, the study examines the combined influence of information retrieval skills and digital literacy on the use of online information resources. This is based on the fact that the use of online information systems require a complex set of skills. While Digital Literacy encompass general skills for using information technology, information retrieval skills cover specific competencies necessary for the use of online information systems. Both skills are therefore expected to complement each other in helping legal professionals to use online information resources.

## 2.5 Summary of Gap in Literature Reviewed

The review of literature is conducted to in line with the objectives of the study. The available literature on the key variables such as online information resources, information retrieval skills and digital literacy are examined to provide a context for the study and to justify its conduct. The review shows that online information resources are products of information technology which revolutionized the way information is created, stored, organized, preserved and disseminated. Online information resources are electronic/digital information resources made available through networked channels. This feature alone distinguishes it from the printed resources that can only be accessed in the library.

Online information resources are usually used to represent scholarly works and other information resources that can be used to create new knowledge. They are expected to be high quality products of rigorous research which can be used by researchers and practitioners in various fields. They are abundant, available round the clock and accessible remotely to be used for researchers all over the world. The proliferation of these resources has led to the creation of different media of making them available to the users. Some of the media include CD-ROM databases, Online Public Access Catalogues (OPAC), Institutional repositories, scholarly databases etc.

The databases have grown to a level where they are now organized by subject so that each field has several databases associated with it. The Science have databases such as; BioOne, HINARI, ScienceDirect etc. For the legal profession, there are databases such as HeinOnline, Law Pavilion, Goali, LexisNexis, LegalPedia etc. Legal professionals can obtain all from of relevant information from these databases. However, most of these databases have developed various access protocols that must be followed by those who need to retrieve information resources from the system. As

a result, while scholarly databases offer great advantages, legal professionals often find out that using them may be more complex and difficult than simply picking up a printed book or journal.

The shift from printed resources to online information resources demanded for both intellectual and psychological adjustment from both individual scholars and institutions. It created the need for institutions to provide certain infrastructures and for individual users to acquire certain skills necessary for the creation, access and use of the new format resources. For information users, there is a need to acquire information various range of skills necessary to access online sources.

One of the skills expected for effective use of online information resources is information retrieval skills. Experts have given various interpretation to the meaning of information retrieval skills but a widely cited scholar has identified the main constructs of information retrieval as information search and information collection. Both constructs have some sub-constructs. Information searching is made up of activities such as direct search, chaining and browsing while information collection consists of information gathering and organizing. Researchers have examined these constructs among various categories of users.

Studies have focused on information retrieval skills of undergraduate students, postgraduate students, lecturers and researchers, with few focusing on other professionals such as doctors, engineers and legal practitioners. The bulk of research on information retrieval skills have focused on information users in academic and research oriented institutions. This is not surprising as most of these studies have been conducted by academic librarians whose primary focus is the users of academic libraries. The studies focused on lawyers are few and far between. Also, the finding seems to suggest that lawyers more skilled in the retrieval of information from

traditional libraries than from online information systems. This led to the examination of other variables such as digital competence.

Digital literacy is another concept that has been widely used without proper contextualization or definition. However, it remains at the heart of scholarly discussions because the world is becoming ever more technology driven and it is no longer enough to be learned in letters. Individuals wishing to survive in the current economy must be digitally literate. In order to properly measure digital literacy, both the European Union and the United Nations have developed complimentary frameworks to describe what constitute digital literacy. The constructs of digital literacy as outlined by the UNESCO's framework included device and software skill, information and data literacy, communication and collaboration, problem solving, safety and digital content creation. These constructs are designed to be exhaustive and researchers are expected to select the skills best relevant to their subjects. Various studies have been conducted on the level of digital competence of various categories of information users around the world.

As suggested researchers have focused on various constructs of digital literacy. The most examined construct however is information literacy skills and ICT skills. This is true for most studies conducted in developing countries such as Nigeria. The study on digital competence have yielded conflicting results. It seems that young people are more likely to possess ICT skills while adult professionals are more likely to have information literacy scale. Like in other studies regarding the use of information resources the focus has been more on the academic environments than on professionals such as lawyers who use information resources in their work.

What is obvious from the reviewed literature is that online information resources have permeated every aspect of human endeavor. There is no profession in the world

without a body of relevant information resources online. The use of online information resources also offers many advantages for all information users including legal professionals. However, the focus has mostly been on researchers and lecturers with dearth of information on legal professional. In addition, no study has combined information retrieval skills and digital literacy as variables in the study of the use of online information resources.

The examination of digital literacy and information retrieval skills in the study based on tested theory and framework also means that this study is a significant contribution to the advancement of knowledge in the area of information resources management.

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## Endnotes

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- <sup>1</sup> O. Israel, & Z., Nsibirwa, *Information Literacy Skills in Using Online Information Resources*. **Library Philosophy and Practice**, 2018. P.1.
- <sup>2</sup> I.N., Azonobi, S.O. Uwaifo, & A., Tella, *Determinants of Postgraduates' Use of Online Information Resources in Federal Universities In Southern Nigeria*. **International Information & Library Review**, 52(3), 2020. Pp.202-215.
- <sup>3</sup> Subha, S. & Natarajan, N.O., *Utilization and Impact of Online Information Resources Among the Faculty Members of Arts & Science Colleges in Erode District, Tamil Nadu: A Case Study*. **Asian Journal of Information Science & Technology (AJIST)**, 9(1). 2019.
- <sup>4</sup> O., Olabode, *Impact of Electronic Resources Use on Academic Performance of Undergraduates in Nigeria*. **Information Impact: Journal of Information and Knowledge Management**, 7(2), 2016. Pp.56-65.
- <sup>5</sup> I.O., Odede, *Information Literacy Self-Efficacy in the Use of Electronic Information Resources by Library and Information Science Postgraduate Students in South South Nigeria (Doctoral Dissertation)*. 2018.
- <sup>6</sup> A., Khan, M.N., Masrek, K. Mahmood, & S. Qutab, "Factors Influencing the Adoption of Digital Reference Services Among the University Librarians in Pakistan." **The Online Library**, 2017.
- <sup>7</sup> A. Xu, H. Kirk, & L. Akerman. "From MARC To BIBFRAME 2.0: Crosswalks." **Cataloging & Classification Quarterly** 56, No. (2-3) 2018: 224-250.
- <sup>8</sup> R. Grant, "Record Keeping and Research Data Management: A Review of Perspectives." **Records Management Journal**, 2017.
- <sup>9</sup> C. S. Maynard, "An Introduction to The History Of The Internet: A Brazilian Perspective." In: *The Internet and Health in Brazil*, Springer, Cham. 2019. 15-26.
- <sup>10</sup> D. Hawthorne. *History Of Online Resources*. In: Holly Yu and Scott Breivold. *Online Resource Management in Libraries: Research and Practice*. London: Information Science Reference, 2008.
- <sup>11</sup> D. Schmidmaier, & H. Rader. "CD-ROM and User Education." **College & Research Libraries News** 52, No. 7: 2020, 449-450.
- <sup>12</sup> E.B., Yeboah, *Resource Description and Organization in Academic Libraries in Ghana: Evidence from The Practice of Three Top Universities*. **Cataloging & Classification Quarterly**, 60(3-4), 2022. pp.225-247.

- 
- <sup>13</sup> D. Prajapati. "Online Resource Management in Libraries." **International Journal of Research in Humanities & Social Sciences**: 2016.12-16.
- <sup>14</sup> K. A Becker. "CD-ROM: A Primer." **College & Research Libraries News** 48, No. 7 2019: 388-393.
- <sup>15</sup> H. H. Yu "The Role of Academic Libraries in Research Data Service (RDS) Provision." **The Online Library**, 2017.
- <sup>16</sup> R, E. Ejovwokoghene, & E. S. Okolo "Use of Online Public Access Catalogue (Opac) In Selected University Libraries in South-South Nigeria." **Library Philosophy and Practice**: 2019. 1-23.
- <sup>17</sup> L. Bishoff, & E. G. Patton. "The PCC And OCLC: Some Reflections On 45 Years of Cooperation." **Cataloging & Classification Quarterly**: 1:8. 2019.
- <sup>18</sup> M.Stark, "Using The Online Catalog Effectively." **College & Research Libraries News** 45, No. 6: 2019. 301-306.
- <sup>19</sup> A., Martín-Martín, M., E. Thelwall, Orduna-Malea, & E., Delgado López-Cózar, Google Scholar, Microsoft Academic, Scopus, Dimensions, Web of Science, And Opencitations' COCI: A Multidisciplinary Comparison Of Coverage Via Citations. **Scientometrics**, 126(1), 2021. Pp.871-906.
- <sup>20</sup> A.E., Oyadeyi, T.A., Oladokun, O.A. Shorunke, & O.S., Fasola, Return on Investment (ROI) In Subscription Databases by Nigerian Academic Libraries: A Survey. **Folia Toruniensia**, 21, 2021. Pp.63-85.
- <sup>21</sup> I.O. Adeyemi, & A.O., Issa, Perceived Usefulness and Ease of Use as Predictors Of Early-Year Lawyers Satisfaction With Law Pavilion Online Law Reports. **Buletin Al-Turas**, 26(2), 2020. Pp.239-252.
- <sup>22</sup> S. Nwone, & S., Mutula, Information Seeking Behaviour of The Professoriate in Selected Federal Universities in Southwest Nigeria. **South African Journal of Libraries and Information Science**, 84(1), 2018. Pp.20-34.
- <sup>23</sup> A. F., Omosekejimi, O. R., Eghworo, & E. P. Ogo, Usage of Electronic Information Resources (EIRs) By Undergraduate Students of Federal University of Petroleum Resources Effurun. **Information and Knowledge Management** (Vol. 5, No. 4, 2015, Pp. 94-103.
- <sup>24</sup> S.A. Olaniyi, & O.,Oyewole, Effort Expectancy as Correlates of Online Information Resources Use by Undergraduates Of Ajayi Crowther University, Oyo State, Nigeria. **Covenant Journal of Library and Information Science**. 2018.

- <sup>25</sup> N.S. Ngema, & T.M., Masenya, *Use of Online Books Among Postgraduate Students in the Department of Information Studies at the University of Zululand, South Africa. Mousaion*, 38(2). 2020.
- <sup>26</sup> M. Muzzammil, & M.A., Ansari, *Usage of Online Information Resources Among the Lawyers of Delhi High Court Bar Association. Library Philosophy and Practice (E-Journal)*, 2893, 2019. Pp.1-5.
- <sup>27</sup> Anyim, W.O. *Online Information Resources for Learning and Research Activities Among Undergraduate Students in the University Library. Journal Of Computer Science and Technology Studies*, 1(1), 2019. Pp.28-35.
- <sup>28</sup> Ankrah, E & Atuase, D. *The Use of Online Resources by Postgraduate Students of The University of Cape Coast, Library Philosophy and Practice (E-Journal)*. 2018. <https://Digitalcommons.Unl.Edu/Cgi/Viewcontent.Cgi?Article=4675&>
- <sup>29</sup> S. A. Nwone & S. M. Mutula , "*A Review Of Information Behaviour Literature On Professoriates Across Disciplinary Fields*" **Library Philosophy And Practice (E-Journal)**. 2843. 2019.
- <sup>30</sup> T. A., Eyiolorunshe, & O. A. Eluwole, "*Awareness, Accessibility and Use of Library Resources By Faculty Members Of Landmark University, Nigeria.*" **Information Impact: Journal Of Information And Knowledge Management** 8, No. 2: 2017. 118-128.
- <sup>31</sup> O. B., Bamigboye, R. O., Odunlade, I. O., Agboola, & S. O. Emmanuel, "*Online Resources as A Panacea For Research Output Of Academic Staff: A Case Study Of Nigerian University.*" **Journal of Library and Information Sciences** 6, No. 1: 2018. 32-36.
- <sup>32</sup> A.O Iyoro, E.C. Nkamnebe, & C.B., Nkamnebe, "*Awareness and Use of Online Resources by Lecturers in Nigeria Police Academy Wudil, Kano State, Nigeria.*" **Library And Information Science Digest**, 11(2), 2018. 13-21.
- <sup>33</sup> S.,Sahoo, R. K., Mahapatra, & S. Pandey, "*Usability and Return on Investment (ROI) of Online Information Resources: An Evaluative Study on Selected Scientific & Research Institutes Libraries In Odisha.*" **Library Philosophy and Practice**, 2019
- <sup>34</sup> M. O. Deans, & C. F Durrant,. *An Investigation into The Knowledge and Use of Online Library Resources In Jamaican Community Colleges. Journal Of Web Librarianship*, 10(4), 239-266; 2016 Doi:10.1080/19322909.2016.1231601
- <sup>35</sup> C. Bhukuvhani, B. Chiparausha,. & D. Zuvalinyenga,. "*Effects Of Online Information Resources Skills Training For Lecturers On Pedagogical Practices And*

---

*Research Productivity.*” **International Journal of Education and Development Using Information and Communication Technology**, 8 (1), 2012, 16-28.

<sup>36</sup> P. K. Singh, & H. N. Prasad, “*Use of Online Resources: A Study of Indian Agricultural Research Institute, New Delhi.*” **International Journal of Information Research**, 3(2), 2013, 141-168.

<sup>37</sup> N. B. Ukachi. "Information Literacy of Students as a Correlate of their Use of Online Resources in University Libraries In Nigeria." **The Online Library**, 2015.

<sup>38</sup> O. Shivaraja, "Online Information Sources: The Effective Use by the Academic Community." **International Journal of Library and Information Science** 7, No. 1: 2015, 14-20.

<sup>39</sup> O.E. Oloyede, G.O. Allison, & Iwu-James, J. “*Impact of Information Literacy Skill on the Usage of Online Information Resources Among Academic Librarians of Private Universities in South-West, Nigeria.*” **Library Philosophy and Practice**, 2019.

<sup>40</sup> K. Singh & A. K. Varma. "Use Of E-resources by the Students and Researchers: With Special Reference to Faculty of Arts, BHU, Varanasi." **Knowledge Librarian** 4, No. 4: 2017. 35-47.

<sup>41</sup> S.K., Yadav, *Use Of E-Resources by Faculty Members of Mizoram University and Babasaheb Bhimrao Ambedkar University: A Comparative Study* (Doctoral Dissertation, Mizoram University), 2021.

<sup>42</sup> A., Tella, F., Orim, D. M., Ibrahim, & S. A. Memudu, “*The Use of Online Resources by Academic Staff at the University of Ilorin, Nigeria.*” **Journal Of Education and Information Technology**, 2018.

<sup>43</sup> S. Zhao, "A Study of Graduate Students' Information Literacy Needs in the Online Resource Environment". **Online Theses and Dissertations**. 7747: 2019. <https://Scholar.Uwindsor.Ca/Etd/7747>

<sup>44</sup> K. Mwantimwa & E. Elia. “*Utilisation of E-Resources to Support Teaching and Research in Higher Learning Institutions, Tanzania.*” **University Of Dares Salaam Library Journal Vol 12, No2; 2017 98-123.**

<sup>45</sup> E Ankrah, & D. Atuase, “*Use of Online Resources by Postgraduate Students of the University of Cape Coast.*” **Library Philosophy and Practice (E-Journal)**. 2018

<sup>46</sup> O. C., Okiki, & B. Z. Ireko, *Awareness and Use of Digital Educational Databases By Final Year Students In Selected Private Universities In Southwest Nigeria.* **Nigerian Online Journal of Educational Sciences and Technology**, 4(1), 2022, 131-142.

- 
- <sup>47</sup> K. A. Eiriemiokhale, *Frequency of Use and Awareness of Electronic Databases by University Lecturers in South-West, Nigeria*. **Library Philosophy & Practice**. 2020
- <sup>48</sup> R., Kumar, & D. K. Gupta, *Re-Structuring Library Resources and Services in IIT Delhi Library: Analytical Study from Users' Perspective*. **Collection and Curation**. Vol. 41 No. 1, 2022, Pp. 9-16
- <sup>49</sup> O. S., Joshua, A., Liviticus, & T. S. Felix, *Awareness and Utilisation of Online Subscription Databases Among Postgraduate Students in Ahmadu Bello University, Zaria*. **Covenant Journal of Library and Information Science**. 2022
- <sup>50</sup> M., Emmasiegbu, & S. E. Anaehobi, *Challenges to the use of Electronic Databases by Lecturers in Government-Owned University Libraries in Anambra State, Nigeria*. **Library Philosophy and Practice**, 2021, 0\_1-16.
- <sup>51</sup> S., Huded, & S. Naikar, *Awareness, Use and Impact of Electronic Information Resources by the Patrons of Narsee Monjee Institute of Management Studies (NMIMS) Hyderabad: A Study*. **International Journal of Information Dissemination and Technology (IJIDT)**, 11(02), 2021. 87-91.
- <sup>52</sup> A. S., Naik, & B. S. Biradar, *Use Of E-Resources by Faculty and Students of Sri Siddaganga College of Pharmacy, Tumakuru, Karnataka: A Study*. **International Journal of Information Dissemination and Technology**, 11(1), 2021. 56-62.
- <sup>53</sup> A. K. U., Deepmala, & P. K. Sharma, *Online Data Bases: A Review of Literature*. **Ilkogretim Online**, 19(4), 2020, 7111-7123.
- <sup>54</sup> V., S. Kumar, T. K., Gireesh Kumar, & Aditya, T. *Electronic Resources of Libraries of First-Generation Indian Institute of Management (IIM): An Evaluative Analysis*. **Library Philosophy and Practice (E-Journal)**, (5356), 2021, 1-13.
- <sup>55</sup> S., Ankamah, K., Gyesi, & V. Amponsah, *Use of Electronic Resources In Research And Learning In A Health Sciences Library In Ghana: An Analysis Of Awareness And Perception Of Users*. **Information Development**, 2022, 02666669221107378.
- <sup>56</sup> T., Borgohain, & T. Deka, *A Case Study on Awareness of Digital Information Literacy Skills Among Students of Royal Global University Guwahati, Assam*. **International Research: Journal of Library and Information Science**, 9(3). 2019
- <sup>57</sup> R.F Aina,. "Awareness, Accessibility and Use of Online Databases Among Academic Staff of Babcock University." **Business School and Management Review**. 3 (6). 2014. Retrieved From: [Http://Arabianjbm.Com/Pdfs/KD\\_VOL\\_3\\_6/4.Pdf](Http://Arabianjbm.Com/Pdfs/KD_VOL_3_6/4.Pdf)

- 
- <sup>58</sup> W.Nwagwu, & Z.,Ajibade, *Information Needs, Information Sources, Information Uses And Information-Seeking Behaviours of Lawyers in Oyo State Nigeria*. **Mousaion**, 38(4). 2020.
- <sup>59</sup> M. Muzzammil, & M.A., Ansari, *Usage of Electronic Information Resources Among the Lawyers of Delhi High Court Bar Association*. **Library Philosophy and Practice (E-Journal)**, 2893, 2019. Pp.1-5.
- <sup>60</sup> R.K., Bhardwaj, *Development of Online Legal Information System: Lawyers' Perceptions*. **DESIDOC Journal of Library & Information Technology**, 39(2). 2019.
- <sup>61</sup> S., Thanuskodi, *Information Search Strategies Among LIS Professionals: A Case Study of Selected Institutions in India*. **Library Philosophy & Practice**. 2019.
- <sup>62</sup> T. A., Oladokun, & A. A. Adeoye, *Utilization of Digital Information Resources by Undergraduates at Lead City University, Ibadan Nigeria*. **Library Philosophy & Practice**. 2022
- <sup>63</sup> I. S. Isibika, & G. F. Kavishe, *Utilisation of Subscribed Online Resources by Library Users in Mzumbe University Library, Tanzania*. **Global Knowledge, Memory and Communication**, 67(1/2), 2018, 109–125. Doi:10.1108/Gkmc-09-2017-0075.
- <sup>64</sup> S. M., Fakunle, O. D., Bakare, & S. V. Adeyeye, *Digital Competence as Determinants of Library Use by Undergraduate Students of Private Universities in Oyo State, Nigeria*. **Library Philosophy & Practice**. 2022
- <sup>65</sup> A.M., Igere, *Users and Digital Information Resources at Benson Idahosa University Library, Benin City*. **ATBU Journal of Science Technology and Education**. 8 (4): 2020. 37-43. Wwww. Atbuftejoste. Com.
- <sup>66</sup> H. U., Igbo, & N. T. Imo, *Digital Libraries and Access to Information In Nigerian Federal Universities: The Impact Of Technology Variables*. **Journal Of Information & Knowledge Management**, 19(02), 2020, 2050013.
- <sup>67</sup> K.,Sileshi, *Digital Information Resources Access and Utilization In Ethiopian Civil Service University Library*. **Journal Of African Development Studies**, 7(1), 2020. Pp.31-47.
- <sup>68</sup> O. B., Bamigboye, R. O., Odunlade, I. O., Agboola, & S. O. Emmanuel, *Electronic Resources as A Panacea for Research Output of Academic Staff: A Case Study of Nigerian University*. **Journal Of Library and Information Sciences** 6, No. 1: 2018. 32-36.

- 
- <sup>69</sup> R., Kumar, & A. Kumar, *Investigating the Information Seeking Behaviour of Academic Lawyers of Kurukshetra University Kurukshetra (Haryana) and Chaudhary Devi Lal University, Sirsa (Haryana): A Comparative Study*. **Library Philosophy and Practice**, 2020, 1-14.
- <sup>70</sup> O. Nwokike, & T., Osisianwo, *Comparing the Use of Electronic Information Resources By Lecturers In Babcock University And Tai Solarin University Of Education In Ogun State, Nigeria*. **Library Philosophy and Practice**, 2020. Pp.1-19.
- <sup>71</sup> R., Ebiefung, A. Adetimirin, & O., Oyewole, *Discipline Variation In Information Retrieval Skills And Use Of Electronic Information Resources By Undergraduates In University Of Uyo, Akwa Ibom State, Nigeria*. **Library Philosophy and Practice**, 2020. Pp.1-19.
- <sup>72</sup> M. Houtinezhad, & H.R., Ghaffary, *Effective Retrieval of Related Documents Based on Spelling Correction to Improve Information Retrieval System*. In *2018 3rd Conference on Swarm Intelligence and Evolutionary Computation (CSIEC)*, **IEEE**. 2018, Pp. 1-6.
- <sup>73</sup> Z., Nasar, S.W. Jaffry, & M.K., Malik, *Information Extraction from Scientific Articles: A Survey*. **Scientometrics**, 117(3), 2018. Pp.1931-1990.
- <sup>74</sup> S. Marcos-Pablos, & F.J., García-Peñalvo, *Information Retrieval Methodology for Aiding Scientific Database Search*. **Soft Computing**, 24(8), 2020. Pp.5551-5560.
- <sup>75</sup> J.C., Onah, I.O., Adayi, E.A. Okonkwo, & G.U., Onyebuchi, *Information Retrieval Skills as It Correlates to Undergraduate Use of Library Information Resources at a Nigerian University*. **Library Philosophy and Practice (E-Journal)**, 4586. 2020.
- <sup>76</sup> B.T., David-West, *Information Retrieval Tools as Predictors for Information Resources Utilization in Academic Libraries in Nigeria*. **International Journal of Knowledge Content Development & Technology**, 10(3), 2020. Pp.21-31.
- <sup>77</sup> M.E., Echem, *Information Retrieval Tools and Library Physical Environment as Correlates Of Library Utilization By Students In Rivers State University Library, Nigeria*. **Library Philosophy and Practice**, 2018. P.1.
- <sup>78</sup> P.O. Adeniran, & U.D., Onuoha, *Influence of Information Literacy Skills on Postgraduate Students' Use of Electronic Resources in Private University Libraries in South-West, Nigeria*. **Communications And Network**, 10(04), 2018. P.164.
- <sup>79</sup> C., Kamposiori, S.Mahony, & C., Warwick, *The Impact of Digitization And Digital Resource Design On The Scholarly Workflow In Art History*. **International Journal for Digital Art History**, (4), 2019. Pp.3-11.
- <sup>80</sup> Edmond, J., Basaraba, N., Doran, M., Garnett, V., Grile, C.H., Papaki, E. & Tóth-Czifra, E., *Scholarly Primitives of Scholarly Meetings: A DH-Inspired Exploration of The Virtual Incunabular In The Time Of COVID 19*. **HAL Open Science**, 2020.

- 
- <sup>81</sup> J.A., Salvador-Oliván, G. Marco-Cuenca, & R., Arquero-Avilés, *Errors in Search Strategies Used In Systematic Reviews And Their Effects On Information Retrieval*. **Journal of the Medical Library Association: JMLA**, 107(2), 2019. P.210.
- <sup>82</sup> W., Yangyuen, S. Nuntapichai, & T., Phetkaew, *A Conceptual Framework for An Information Behavior Model Based on the Collaboration Perspective Between User and System For Information Retrieval*. **Journal of Information Science Theory and Practice** 8(3): 2020, 30-46. <https://doi.org/10.1633/JISTaP.2020.8.3.3>
- <sup>83</sup> J., Hirt, T., Nordhausen, C. Appenzeller-Herzog, & H.,Ewald, *Using Citation Tracking For Systematic Literature Searching-Study Protocol For A Scoping Review Of Methodological Studies And A Delphi Study*. **F1000Research**, 9. 2020.
- <sup>84</sup> A., Al-Ajlan, *The Comparison Between Forward and Backward Chaining*. **International Journal of Machine Learning and Computing**, 5(2), 2015 P.106.
- <sup>85</sup> J.C., Onah, I.O., Adayi, E.A. Okonkwo, & G.U., Onyebuchi, *Information Retrieval Skills as It Correlates to Undergraduate Use of Library Information Resources at a Nigerian University*. **Library Philosophy and Practice (E-Journal)**, 4586. 2020.
- <sup>86</sup> S. Yadav, & M., Kumar, *Information Seeking Behavior Of Under Graduate Students Of English Discipline: A Comparative Study of Miranda House College And Vivekananda College, University Of Delhi*. **Library Philosophy and Practice (E-Journal)**, 2021.
- <sup>87</sup> R., Krishnan, *Use and Impact of Electronic Journals among the Users of Periyar University In Salem, Tamilnadu, India*. **Library Philosophy and Practice (E-Journal)**, 2199. 2019.
- <sup>88</sup> A. Dutta, & P., Mukhopadhyay, *Serendipity in Library Retrieval: Reinforcing Discovery Through Visualization of Bibliographic Relationships*. **SRELS Journal of Information Management**, 58(4), 2021. Pp.213-227.
- <sup>89</sup> A. Singh, & N., Panackal, *A Study of Knowledge Management in Education for Research Sustainability–An Overview*. **Indian Journal of Commerce and Management Studies**, 10(2), 2019. Pp.01-07.
- <sup>90</sup> A., Rafique, K. Ameen, & A., Arshad, *Use Patterns Of E-Journals Among the Science Community: A Transaction Log Analysis*. **The Electronic Library**. 2019.
- <sup>91</sup> A., Vanscoy, H. Julien, & A., Harding, *Integration of Information Behavior into Reference and Information Services Education: A Syllabus Study*. **Journal Of Education for Library and Information Science**, 2021. P.E20210008.
- <sup>92</sup> L. Johnston, & J., Jeffryes, *Data Management Skills Needed by Structural Engineering Students: Case Study At The University of Minnesota*. **Journal Of Professional Issues in Engineering Education and Practice**, 140(2), 2014. P.05013002.

- 
- <sup>93</sup> R.M. Oshiname, & G.A., Ajuwon, *Awareness and Use Of Reference Managers By Resident Doctors In Nigeria*. **Journal Of Health Information and Librarianship**, 5(1), 2020. Pp.93-107.
- <sup>94</sup> F.J., Abduldayan, F.P., Abifarin, G.U. Oyedum, & J.A., Alhassan, *Research Data Management Practices of Chemistry Researchers in Federal Universities Of Technology In Nigeria*. **Digital Library Perspectives**. 2021.
- <sup>95</sup> P. Bejaković, & Ž., Mrnjavac, *The Importance of Digital Literacy on The Labour Market*. **Employee Relations: The International Journal**. Vol. 42 No. 4, 2020. Pp. 921-932. <https://doi.org/10.1108/ER-07-2019-0274>
- <sup>96</sup> M.Antoninis, "Digital Competence: From A Framework to A Measure." **UNESCO UIS**. Last Modified March 6, 2019. <https://uis.unesco.org/en/blog/digital-literacy-skills-framework-measure>.
- <sup>97</sup> J., Fraillon, J., Ainley, W., Schulz, D. Duckworth, & T., Friedman *IEA International Computer And Information Literacy Study 2018 Assessment Framework*. **Springer Nature**. 2019. p. 74
- <sup>98</sup> T.,Friedman, & D. Duckworth, *IEA International Computer And Information Literacy Study 2018 Technical Report*. In. Amsterdam, **The Netherlands: International Association for The Evaluation Of Educational Achievement**, 2020
- <sup>99</sup> K. Y., Jin F., Reichert L.P., Cagasan Jr, J. De La Torre & N., *Law Measuring Digital Literacy Across Three Age Cohorts: Exploring The Dimensionality And Performance Differences*, **Computers & Education**, 2020, Doi: <https://doi.org/10.1016/j.compedu.2020.103968>.2019.
- <sup>100</sup> N., Law, D. Woo, & G., Wong, *A Global Framework Of Reference On Digital Competence For Indicator 4.4. 2 UNESCO*. 2018, No. 51, P. 146).
- <sup>101</sup> S., Carretero, R., Vuorikari, & Y. Punie, *Digcomp 2.1: The Digital Competenceframework For Citizens With Eight Proficiency Levels And Examples Of Use (No. JRC106281)*. **Joint Research Centre (Seville Site)**. 2017. [http://publications.jrc.ec.europa.eu/repository/bitstream/JRC06281/webdigcomp2.1pdf\\_\(online\).pdf](http://publications.jrc.ec.europa.eu/repository/bitstream/JRC06281/webdigcomp2.1pdf_(online).pdf)
- <sup>102</sup> European Union. "The Digital Competence Framework." **EU Science Hub**. 2022. [https://joint-research-centre.ec.europa.eu/digcomp/digital-competence-framework\\_en#the-digcomp-conceptual-reference-model](https://joint-research-centre.ec.europa.eu/digcomp/digital-competence-framework_en#the-digcomp-conceptual-reference-model).
- <sup>103</sup> M., Jamil, M. Tariq, & K., Shahzad, *Digital Competencies of Legal Practitioners of Lahore High Court Bar Association (LHCBA)*. **International Journal of Information Management Sciences**, 2(1), 2018. Pp.10-23.
- <sup>104</sup> S., Kaeophanuek, J. Na-Songkhla, & P., Nilsook, *How to Enhance Digital Competence Among*. **International Journal Of Information And Education Technology**, 8(4), 2018. Pp.292-297.

- 
- <sup>105</sup> M., Al-Emran, V., Mezhuyev, & A. Kamaludin, *Technology Acceptance Model In M-Learning Context: A Systematic Review*. **Computers & Education**, 125, 2018, 389-412.
- <sup>106</sup> T., Araújo, & B. Casais, *Customer Acceptance of Shopping-Assistant Chatbots*. In *Marketing and Smart Technologies*. **Springer, Singapore**. 2020, Pp. 278-287
- <sup>107</sup> Y. T. Babalola, & C. Azubuike, *Antecedents of the Use of Electronic Information Resources By Lawyers In Selected Law Firms In Lagos State, Nigeria*. **Information Impact: Journal of Information and Knowledge Management**, 9(4), 2018, 1-13.
- <sup>108</sup> A. Uluocha, & M. Iyabo, *Information Resources Availability and Utilisation as Determinants Of Law Lecturers Research Productivity*. **Journal Of Applied Information Science and Technology**, 7 (2), 2014
- <sup>109</sup> L. A. Atanda, & J. E. Ugwulebo, *Awareness, Access and Utilization of Library Catalogue by Undergraduate Students of the College of Law, Osun State University Osogbo, Osun State, Nigeria*. **International Journal of Library and Information Science**, 9(11): 2017, 115-121
- <sup>110</sup> J. Unsworth, "Scholarly Primitives: What Methods Do Humanities Researchers Have In Common, And How Might Our Tools Reflect This? King's College London. Online Verfügbar Unter [Http://People.Lis.Illinois.Edu/~ Unsworth/Kings](http://People.Lis.Illinois.Edu/~Unsworth/Kings) (2000): 5-00.
- <sup>111</sup> L., Pangrazio, A.L. Godhe, & A.G.L., Ledesma, *What Is Digital Literacy? A Comparative Review of Publications Across Three Language Contexts*. **E-Learning and Digital Media**, 17(6), 2020. Pp.442-459.
- <sup>112</sup> C.O., Onyebinama, C.V. Anunobi, & A.U.O., Uzochukwu, *Effect of Gender On Lecturers' Submission And Retrieval Of Research Output In Institutional Repositories In Private Universities In Southern Nigeria*. **Library Philosophy and Practice (E-Journal)**. 2020.
- <sup>113</sup> M.R., Prasad, *Information Retrieval Skills of Research Scholars of Social Sciences: A Study*. In *International Conference on Asian Digital Libraries*. Springer, Cham. 2014, Pp. 344-353
- <sup>114</sup> A., Imam, A.O. Oyeleye, & A.O., Remilekun, *Enhancing Information Retrieval Skills Through Library User Education In College Of Education In South-West Nigeria*. **International Journal of Information Processing and Communication (IJIPC)**, 7(2), 2019. Pp.40-49.
- <sup>115</sup> T., Russell-Rose, J. Chamberlain, & L., Azzopardi, *Information Retrieval In The Workplace: A Comparison Of Professional Search Practices*. **Information Processing & Management**, 54(6), 2018. Pp.1042-1057.

- 
- <sup>116</sup> A., Leonard, N.M. Hamutumwa, & C., Mnubi-Mchombu, *Use of Electronic Resources by Law Academics: A Case Study from The University of Namibia. Collection And Curation*. 2020.
- <sup>117</sup> A. Uluocha, & M., Iyabo, *Information Resources Availability and Utilisation as Determinants of Law Lecturers Research Productivity. Journal Of Applied Information Science and Technology*, 7 (2) 2014
- <sup>118</sup> J.C., Onah, I.O., Adayi, E.A. Okonkwo, & G.U., Onyebuchi, *Information Retrieval Skills as It Correlates to Undergraduate Use of Library Information Resources At A Nigerian University. Library Philosophy and Practice (E-Journal)*, 4586. 2020.
- <sup>119</sup> R. Obat, *Self-Assessment of Information Retrieval Skills in Using Electronic Information Resources: A Case Study of Maseno University Students*. A Conference Paper Presented at UP Carnegie Conference On 29th March, 2019.
- <sup>120</sup> T.A.H. Famaren, & S.T.C.,Tofi, *Influence of Information Retrieval Skills Of Undergraduate Students On Their Effective Use of Electronic Resources In University Libraries In Benue State, Nigeria. Jewel Journal of Librarianship Volume 16, Issue 3; 2021. <https://www.jeweljournals.com>*
- <sup>121</sup> W.O., Anyim, *Knowledge and Use of Information Retrieval Tools by Lawyers at Miyetti Law Abuja, Nigeria. International Journal of Library and Information Studies*, 10(1), 2020. Pp.36-44.
- <sup>122</sup> K., Van Noortwijk, *Integrated Legal Information Retrieval: New Developments and Educational Challenges. European Journal of Law and Technology*, 8(1). 2017.
- <sup>123</sup> H. Umar, & V., Sokari, *Challenges Associated with Utilization of Legal Information Resources by Postgraduate Law Students In Federal Universities Of Northern Nigeria. Information Impact: Journal of Information and Knowledge Management*, 11(1), 2020. Pp.40-47.
- <sup>124</sup> F. M., Sari, & L. Oktaviani, *Undergraduate Students' Views On the Use Of Online Learning Platform During COVID-19 Pandemic. Teknosastik*, 19(1), 2021, 41-47.
- <sup>125</sup> Odede, I.R. & Jiyane, G.V., *Exploring Dimensional Constructs of Digital Competence for Higher Education. Library Philosophy and Practice (E-Journal)*. 2806. 2019. <https://>
- <sup>126</sup> E., Hargittai, A. M., Piper, & M. R. Morris, *From Internet Access to Internet Skills: Digital Inequality Among Older Adults. Universal Access in the Information Society*, 18(4), 2019, 881-890.
- <sup>127</sup> S., Mcgrew, J., Breakstone, T., Ortega, M., Smith, & S. Wineburg, *Can Students Evaluate Online Sources? Learning From Assessments of Civic Online Reasoning. Theory & Research in Social Education*, 46(2), 2018, 165-193.

- 
- <sup>128</sup> M., Rafi, Z. Jianming, & K., Ahmad, *Technology Integration for Students' Information and Digital Literacy Education in Academic Libraries*. **Information Discovery and Delivery**, 2019.
- <sup>129</sup> S., Kaeophanuek, J. Na-Songkhla, & P., Nilsook, *How to Enhance Digital Competence Among*. **International Journal of Information and Education Technology**, 8(4), 2018. Pp.292-297.
- <sup>130</sup> L., Pangrazio, A.L. Godhe, & A.G.L., Ledesma, *What Is Digital Literacy? A Comparative Review of Publications Across Three Language Contexts*. **E-Learning and Digital Media**, 17(6), 2020. Pp.442-459.
- <sup>131</sup> O. Israel, & Z., Nsibirwa, *Information Literacy Skills In Using Electronic Information Resources*. **Library Philosophy and Practice**, 2018. P.1.
- <sup>132</sup> E., Akpovire, O.R., Olawoyin, O. Adebayo, & U.C., Esse, *Role of Information Literacy Skills on Use of Information Resources by Medical Students in Lagos State*. **Library Philosophy and Practice (E-Journal)**. 2148. 2019. [Http://Digitalcommons.Unl.Edu/Libphilprac/2148](http://Digitalcommons.Unl.Edu/Libphilprac/2148)
- <sup>133</sup> T., Mallaiah, *Digital Information Literacy Skills Among Faculty Members of Engineering Colleges in Manalore, Karnataka: A Study*. **International Journal of Digital Library Services**, 7(1), 2017. Pp.28-37.
- <sup>134</sup> S.U., Jan, M. Ashfaq, & S., Ullah, "Information Literacy Skills of Legal Practitioners in Khyber Pakhtunkhwa-Pakistan: An Empirical Study". **Library Philosophy and Practice (E-Journal)**. 7130. 2022. <https://Digitalcommons.Unl.Edu/Libphilprac/7130> 2022.
- <sup>135</sup> M.A. Naveed, & N.A., Shah, *Information Literacy in the Legal Workplace: Current State of Lawyers' Skills in Pakistan*. **Journal Of Librarianship and Information Science**, 2022. P.09610006221081895.
- <sup>136</sup> J., Jamshed, S.B. Naeem, & R., Bhatti, *Lawyers' Usage Patterns of District Bar Law Library of Multan*. **Pakistan Library & Information Science Journal**, 51(1). 2020.
- <sup>137</sup> Y.T. Babalola, & C., Azubuikwe, *Antecedents of the Use of Electronic Information Resources by Lawyers in Selected Law Firms in Lagos State, Nigeria*. **Information Impact: Journal of Information and Knowledge Management**, 9(4), 2018. Pp.1-13.
- <sup>138</sup> J.N. Agwunobi, & P.T., Umoren, *The Use of Online Legal Information Access and Retrieval Devices in the E-Library of the Faculty of Law, University of Calabar, Nigeria*. **Journal Of Library Services and Technologies**, 2(1), 2020. Pp.30-40.

## **Chapter Three**

### **Methodology**

This chapter presents details of the systematic steps involved in conducting this research on the influence of information retrieval skills and digital literacy on the use of online information resources by legal practitioners in Ogun state. It outlines the methodology with explanations for various aspects such as the research design, study population, sampling technique, research instrument, administration of the instrument, validity and reliability as well as method adopted for data analysis.

#### **3.1 Research Design**

The study adopted a descriptive survey research design. This is a quantitative approach which allows for the collection of data from a large population. The survey research was considered appropriate for this study because of the need to empirically measure the study variables and show the relationship between them. It is also considered relevant due to the large and dispersed nature of the study respondents.

#### **3.2 Population of the Study**

The population for this study consisted of legal practitioners who are registered members of the Ogun State chapter of the Nigerian Bar Association (NBA). The legal practitioners are from five zones (Branches) of the Ogun state NBA, namely, Ota Branch (230), Abeokuta Branch (270), Ilaro Branch (57) Sagamu Branch (57) and Ijebu-Ode (85). The total population therefore amount to 699 legal practitioners<sup>1</sup>.

(Table 3.1)

**Table 3.1 Population of the Study**

S/N	Ogun State NBA	No. of Legal Professionals
1.	Ota Branch	230
2.	Abeokuta Branch	270
3.	Ilaro Branch	57
4.	Sagamu Branch	57
5	Ijebu-Ode Branch	85
	<b>Total</b>	<b>699</b>

Sources: Ogun State NBA Zonal Headquarters, 2022

### 3.3 Sample and Sampling Technique

The sample size for the study is 242 legal practitioners. This is obtained from the sample size table developed by Krejcie and Morgan (figure 3.1)

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size  
"S" is sample size.

Source: Krejcie & Morgan, 1970

Figure 3.1: Krejcie and Morgan Table

From the table (figure 3.1), it can be seen that the appropriate sample size for the current study is minimum of 242. Having determined the sample size which

represents about 38% of the total population, proportionate sampling technique will therefore be used to select the same percentage from each branch to ensure that the sample drawn is proportionate to the population of each branch. This has led to a sample of 242 (Table 3.2) which is considered adequate.

**Table 3.2: Sample Size**

S/N	Ogun State NBA	No. of Professionals	Legal	Sample
1.	Ota Branch	230		$\frac{242}{699} \times 230 = 80$
2.	Abeokuta Branch	270		$\frac{242}{699} \times 270 = 93$
3.	Ilaro Branch	57		$\frac{242}{699} \times 57 = 20$
4.	Sagamu Branch	57		$\frac{242}{699} \times 57 = 20$
5	Ijebu-Ode Branch	85		$\frac{242}{699} \times 85 = 29$
	<b>Total</b>	<b>699</b>		<b>242</b>

### 3.4 Description of the Research Instrument

The instrument used in this research is a structured questionnaire adapted from relevant theories and models. The study adopted the Likert scale design which allowed the researcher in listing options where respondents choose from. The instrument is made up of four sections.

Section A contains the demographic information of respondents which is self-developed. The bio-data of respondents was measured through metrics such as: Zone, Years of Experience, Gender and Age.

Section B: The use of online information resource scale with 7 items was measured through two dimensions, frequency and purpose of use; frequency of use has 1 item

with 4-point Likert type scale of 4= Daily; 3= Weekly; 2= Monthly and 1= Never. Example of statement is; how frequent do you make use of online information resource? The purpose of use of online information resource by legal professional in Ogun state, Nigeria. The options provided in this study's questionnaire followed the 4-point Likert type scale of 4= Strongly Agree (SA), 3= Agree (A), 2= Disagree (D) and 1= Strongly Disagree (SD). Examples of statements are, to study for examination, to gather information for personal development

Section C: Information retrieval skills scale. This section measures the information retrieval skills of the respondent. The metrics are Information Searching and information collection. It is adapted from previous related studies<sup>1,2</sup>. The questions and statements were derived from the constructs outlined by the Scholarly primitive theory. Each statement is rated Likert type, 4-points scales ranging from: 4= Very high extent, 3= High Extent, 2= Low Extent and 1= Very Low Extent. Examples of statements include: I can use Boolean operators to restrict and expand my information search; "I search the reference of a relevant articles to get more relevant articles; I use truncations techniques (such as \$, \*, +) to search when I am not sure of what I am searching for" etc.

Section D, digital literacy scale. the items in this section are adapted from the UNESCO's Digital Literacy Global Framework<sup>3</sup>. The section is organized under: Device and software literacy, Information & data literacy and Digital content creation: Each item is measured on a 4-point Likert scales: 4= Very high extent, 3= High Extent, 2= Low Extent and 1= Very Low Extent. Examples of question include: I can identify and use computer and other digital devices (laptops, mobile phones, tablets etc), I can identify and use computer software and mobile applications (MS Word,

Adobe Acrobat, WPS, etc), I can clearly define my information needs, I can search for data, information and contents in digital environments.

### **3.5 Validity of Research Instrument**

The validity of research instrument focus on its ability to properly measure the constructs and variables in the study. To ensure the face and content validity of the research instrument, the questionnaire was submitted to the supervisor other experts in the field of Library and Information Science for appraisal. The corrections and suggestions made contribute to the validity of the instrument.

### **3.6 Reliability of the Research Instrument**

Reliability mean the ability of a research instrument to remain consistent in measuring variables across location and time. The reliability of the instrument was tested through a pilot study using Thirty (30) legal professionals from Lagos state who are not part of the study. Copies of the drafted questionnaire was administered on the respondent to collect empirical data. The analysis of the pre-test shows the following Cronbach alpha values; Level of use (0.72), information retrieval skills (0.79), Digital competence (0.83). These values support the reliability of the research instrument.

### **3.7 Administration of the Instrument and Method of Data Collection**

A letter of introduction and project attestation was obtained from the Department of Information Management, Lead City University which was used to gain permission to conduct the survey and administer the questionnaire on the respondents. The research instrument was administered physically with the aid of five (5) research assistant who were trained by the researcher. The whole data collection exercise lasted for a period of six weeks.

### **3.8 Methods of Data Analysis**

The data collected from questionnaires was coded and analysed using the IBM SPSS Statistics Software. The research questions were analysed with descriptive statistic such as simple frequencies and percentages while the research hypotheses were analysed using inferential statistics. Hypotheses 1 and 2 were analysed using simple linear regression analysis while hypotheses 3 was tested using multiple regression analysis. All hypotheses will be tested at 0.05 level of significance.

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### Endnotes

1. J.C., Onah, I.O., Adayi, E.A. Okonkwo, & G.U., Onyebuchi, *Information Retrieval Skills As It Correlates To Undergraduate Use Of Library Information Resources At A Nigerian University. Library Philosophy and Practice (e-journal)*, 4586. 2020.
2. M. Ekenna, & I., Mabawonku, *Information Retrieval Skills and Use of Library Electronic Resources by University Undergraduates In Nigeria. In Information and Knowledge Management*, Vol. 3, No. 9, 2013. pp. 6-14.
3. N., Law, D. Woo, & G., Wong, *A Global Framework Of Reference On Digital Literacy Skills For Indicator 4.4. 2. UNESCO. No. 51, 2018. , p. 146*

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## Chapter Four

### Results and Discussion of Findings

This chapter presents the results of data analysis based on the questionnaire during the research. The researcher administered the study questionnaire to 242 Lawyers from five zones of NBA in Ogun State. Out of the 242 questionnaires, 235 were completed and returned. This represents 97.1% return rate which is considered adequate for generalization.

#### 4.1 Demographic Analysis

**Table 4.1: Demographic Analysis**

		<b>Frequency</b>	<b>Percent</b>
Gender	Male	141	60.0
	Female	94	40.0
	<b>Total</b>	<b>235</b>	<b>100.0</b>
Work Experience	1-4	89	37.9
	5 -9	52	22.1
	10-15	48	20.4
	16years	46	19.6
	<b>Total</b>	<b>235</b>	<b>100.0</b>
Employment Type	Self Employed	105	44.7
	Public practice	90	38.3
	Private Law Firm	25	10.6
	Corporate Organisations	15	6.4
	<b>Total</b>	<b>235</b>	<b>100</b>
Bar/Zones	Abeokuta	91	38.7
	Ilaro	19	8.1
	Ijebu-Ode	23	9.8
	Sagamu	24	10.2
	Ota	78	33.2
	<b>Total</b>	<b>235</b>	<b>100.0</b>

**Source: Fieldwork 2022**

Table 4.1 presents the demographic distribution of the respondents. The gender distribution shows that out of a total of 235 respondents, there are 141 males,

accounting for 60% of the total respondents. On the other hand, the female population consists of 94 individuals, making up 40.0% of the total respondents. This indicates that there are more males than females. In term of work experience

The "Work Experience" section of the analysis provides a detailed breakdown of the individuals in the group based on the number of years they have worked in their respective professions. The results showed that 89 respondents, constituting 37.9% of the total respondents has between 1 to 4 years of work experience; 52 (22.1%) respondents have between 5 to 9 years of work experience; 48 (20.4%) have work experience of 10 to 15 years while 46 (19.6%) of the respondents have a work experience of exactly 16 years and above. The data shows a diverse range of experience, from individuals in the early stages of their careers to those with more than 15 years of professional experience.

In the aspect of employment type, the result shows that those who indicate Self Employed were 105 respondents representing 44.7% of the total respondents. Furthermore, 90 (38.3%) respondents indicated that they work with the state legal system; 25 (10.6%) indicated private law firm while 15 (6.4%) of the group Corporate Organisations.

The respondents are also from different jurisdictions. The responses show that 91 (38.7%) respondents were from Abeokuta zone; followed by Ota with 78 (33.2%) of the respondents. In addition, 19 (8.1 %) of the respondents indicated Ilaro; 23 (9.8%) of them were from Ijebu-Ode while those from Sagamu were 24 representing 10.2% of the total respondents

## 4.2 Presentation of Research Questions

### 4.2.1. Research Question One: What is the Frequency of Use of Online Legal Information Resources by Legal Practitioners in Ogun state

**Table 4.2: Frequency of Use of Online Legal Information Resources by Legal Practitioners in Ogun state?**

Item	Always	Often	Sometimes	Rarely	Mean
West Law	44 (18.72%)	52 (22.13%)	47 (20.00%)	92 (39.15%)	2.93
Others (Internet, repositories etc)	48 (20.43%)	52 (22.13%)	63 (26.81%)	72 (30.64%)	2.76
Biblio Online	59 (25.11%)	57 (24.26%)	49 (20.85%)	70 (29.79%)	2.70
Legalpedia	50 (21.28%)	56 (23.83%)	65 (27.66%)	64 (27.23%)	2.64
Law Pavilion	69 (29.36%)	48 (20.43%)	62 (26.38%)	56 (23.83%)	2.63
Search Engines	62 (26.38%)	58 (24.68%)	50 (21.28%)	65 (27.66%)	2.63
Quick Law	51 (21.70%)	70 (29.79%)	60 (25.53%)	54 (22.98%)	2.61
Criminal Justice Abstract	59 (25.11%)	65 (27.66%)	48 (20.43%)	63 (26.81%)	2.59
Lexis Nexis	47 (20.00%)	78 (33.19%)	52 (22.13%)	58 (24.68%)	2.51
ProQuest	49 (20.85%)	61 (25.96%)	68 (28.94%)	57 (24.26%)	2.51
Kluwer Arbitration	57 (24.26%)	39 (16.60%)	70 (29.79%)	69 (29.36%)	2.49
<b>Aggregate mean</b>					<b>2.63</b>

Decision rule 0.00 - 1.99 = very low, 2.00 - 2.50 = low, 2.51 – 2.99 Moderate, 3.00 – 3-49 = high, 3.50-4.00= very high.

**Source: Field Survey Results (2023)**

Table 4.3 shows the results of online legal information resources by legal practitioners in Ogun state. The West Law database is most frequently used as 44 (18.72%) indicated that they always use it, 52 (22.13%) of the respondents often use it while 47 (20%) sometimes and 92 (39.15%) of the respondents rarely use the database. On average, the use of Westlaw has a mean score of 2.93 which also indicates a high frequency of use. The same is true for BiblioOnline as 59 (25.11%) of the respondents always use the database; 57 (24.26%) often use it, 49 (20.85%) sometimes use and 70 (29.79%) rarely make use of Biblio Online. On average, the use of BiblioOnline has a mean score of 2.70 which also indicates a high frequency of use.

Another frequently used database is Legalpedia as 50 (21.28%) of the respondents stated that they always use the database. In the same vein, 56 (23.83%) of the respondents often use it, 65 (27.66%) sometimes use it while 64 (27.23%) of the respondents indicated that they rarely make use of the Legalpedia database. On average, the use of Legalpedia among the respondents has a mean score of 2.64 which also indicates a high frequency of use. The same is true for Law Pavilion as 69 (29.36%) of the respondents always use the database while 48 (20.43%) often use it. On the other hand, 62 (26.38%) of the respondents use it sometimes while 56 (23.83%)

of them rarely make use of the databases. On average, the use of Legalpedia among the respondents has a mean score of 2.63 which also indicates a high frequency of use. Another online resources with a mean score of 2.63 is the search engine. Many legal practitioners prefer the search engine as 62 (26.38%) of them reported that they always use search engines, 58 (24.68%) often make use of search engines for research while 50 (21.28%) sometimes use and 65 (27.66%) rarely make use of search engines. Further online legal resource used include Quick Law. 51 (21.70%) reported that they always use the database while 70 (29.79%) of the

respondents often use it. Meanwhile, 60 (25.53%) sometimes use while 54 (22.98%) of them rarely make use of the database. On average, the use of Quick Law databases among the respondents has a mean score of 2.61 which indicates a high frequency of use. Furthermore, 59 (25.11%) of the respondents indicated that they always make use of Criminal Justice Abstract databases; 65 (27.66%) often use it, 48 (20.43%) sometimes use while 63 (26.81%) rarely use the database. On average, the use of Criminal Justice Abstract databases among the respondents has a mean score of 2.59 which indicates a high frequency of use. The least frequent used databases is however Kluwer Arbitration as 57 (24.26%) indicated that they always use it, 39 (16.60%) of the respondents often use it 70 (29.79%) and 69 (29.36%) rarely make use of it. On average, the use of the Kluwer Arbitration database among the respondents has a mean score of 2.49 which indicates a low frequency of use. However, the overall mean score for frequency of use is 2.63 indicating a high frequency of online legal resources use among the respondents.

#### 4.2.2 What is Purpose of Use of Online Legal Information Resources by Legal Practitioners in Ogun state.

**Table 4.3: Purpose of Use of Online Legal Information Resources by Legal Practitioners in Ogun state.**

Item	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean
<b>I use online legal information resources:</b>					
To access statutes, acts, and decrees	80 (34.0%)	110 (46.8%)	30 (12.8%)	15 (6.4%)	3.36
To conduct case background research	75 (31.9%)	115 (48.9%)	30 (12.8%)	15 (6.4%)	3.34
To keep abreast of general information	85 (36.2%)	110 (46.8%)	25 (10.6%)	15 (6.4%)	3.32
To locate potential witnesses and experts	85 (36.2%)	100 (42.6%)	30 (12.8%)	20 (8.5%)	3.26
To search for case laws	91 (38.7%)	103 (43.8%)	26 (11.1%)	15 (6.4%)	3.24
To keep abreast of new developments in the legal system	90 (38.3%)	105 (44.7%)	25 (10.6%)	15 (6.4%)	3.24
To prepare for conferences and seminars	95 (40.4%)	95 (40.4%)	30 (12.8%)	15 (6.4%)	3.20
To better understand complex legal issues	105 (44.7%)	90 (38.3%)	20 (8.5%)	20 (8.5%)	3.18
To prepare legal documents and correspondence	83 (35.3%)	89 (37.9%)	25 (10.6%)	18 (7.7%)	3.16
<b>Aggregate Mean</b>					<b>3.26</b>

Decision rule 0.00 - 1.99 = very low, 2.00 - 2.50 = low, 2.51 – 2.99 Moderate, 3.00 – 3.49 = high, 3.50-4.00= very high.

**Source: Field Survey Results (2023)**

Table 4.4 presents data on the purpose of use of online legal resources among the respondents. According to results in Table 4.4. 80 (34%) of respondents strongly agree that they use online law resources to access statutes, acts, and decrees, 110 (46.8%) agree, 30 (12.8%) disagree, and 15(6.4%) strongly disagree. On average, the use of law resources to access statutes, acts, and decrees s has a mean of 3.36. Results

also indicated that 75 (31.9%) of respondents strongly agree that they use online law resources to conduct case background research, 115 (48.9%) agree, 30 (12.8%) disagree, and 15 (6.4%) strongly disagree. On average, the use of law resources to access statutes, acts, and decrees has a mean of 3.36. Furthermore, 85 (36.2%) of respondents strongly agree that they use online law resources to locate potential witnesses and experts, 100 (42.6%) agree, 30 (12.8%) disagree, and 20 (8.5%) strongly disagree. On average, the use of use online law resources to locate potential witnesses and experts has a mean of 3.26.

In addition, 91 (38.7%) of respondents stated that they strongly agree with the use online law resources to search for case laws, 103 (43.8%) agree, 26 (11.1%) disagree, and 15(6.4%) strongly disagree. On average, the use of law resources to search for case laws has a mean of 3.24. Results also indicated that 90 (38.3%) of respondents strongly agree that they use online law resources to keep abreast of new developments in the legal system, 105 (44.7%) agree, 25 (10.6%) disagree, and 15 (6.4%) strongly disagree. On average, the use of law resources to keep abreast of new developments in the judiciary has a mean of 3.24. In the same vein, 95 (40.4%) of respondents strongly agree that they use online law resources to prepare for conferences and seminars, 95 (40.4%) agree, 30 (12.8%) disagree, and 15 (6.4%) strongly disagree. On average, the use of use online law resources to prepare for conferences and seminars has a mean of 3.20. Majority of the respondents, 105 (44.7%) also strongly agree that they use online law resources to better understand complex legal issues, 90 (38.3%) agree, 20 (8.5%) disagree, and strongly disagree respectively. On average, the use of use online law resources to better understand complex legal issues has a mean of 3.18. Also, 83 (35.3%) strongly agree that they use online law resources to prepare legal documents and correspondence, 89 (37.9%) agreed, 25 (10.6%) disagreed, and 18 (7.7%)

strongly disagreed. On average, the use of use online law resources to prepare legal documents and correspondence, has a mean of 3.16. Overall, the aggregate mean for the purpose of use of online legal resources among the respondents is 3.26.

**Table 4.4: Level of Information Retrieval Skills Among Legal Practitioners in Ogun State.**

<b>Direct Search</b>	<b>VHE</b>	<b>HE</b>	<b>LE</b>	<b>VLE</b>	<b>Mean</b>
I can use Boolean operators to restrict and expand my information search	53 (22.6%)	50 (21.3%)	52 (22.1%)	80 (34.0%)	2.58
I can filter search results by specifying the year of publication, language, location, etc.	50 (21.3%)	49 (20.9%)	52 (22.1%)	84 (35.7%)	2.59
<b>Chaining</b>					
"I search the reference of a relevant article to get more relevant articles	53 (22.6%)	51 (21.7%)	51 (21.7%)	80 (34.0%)	2.62
I use Google Scholar to check for other studies that have cited the article I find useful	46 (19.6%)	52 (22.1%)	48 (20.4%)	89 (37.9%)	2.43
I can follow a useful link from a relevant information resource to get more information	50 (21.3%)	49 (20.9%)	52 (22.1%)	84 (35.7%)	2.59
<b>Browsing</b>					
I use truncation techniques (such as \$, *, +) to search when I am not sure of what I am searching for	54 (23.0%)	48 (20.4%)	51 (21.7%)	82 (34.9%)	2.55
Use of search engines such as Yahoo, Google, Alta Vista, and Google Scholar, etc.	47 (20.0%)	57 (24.3%)	49 (20.9%)	82 (34.9%)	2.64
<b>Information Assessment</b>					
I usually pay attention to the site or database I am getting information from	52 (22.1%)	51 (21.7%)	51 (21.7%)	81 (34.5%)	2.68
I consider the reputation of the author of information I download from the internet	50 (21.3%)	54 (23.0%)	51 (21.7%)	80 (34.0%)	2.58

#### **Information Gathering**

I can easily download information resources from online databases or save web pages if found useful	48 (20.4%)	49 (20.9%)	53 (22.6%)	85 (36.2%)	2.64
Storing information on alternative devices (e.g., flash drive/USB, external hard drive)	52 (22.1%)	51 (21.7%)	51 (21.7%)	81 (34.5%)	2.68
I can transfer information resources from one computer device to another	52 (22.1%)	49 (20.9%)	53 (22.6%)	81 (34.5%)	2.66
<b>Information Organisation</b>					
I can rename documents I download from the internet for easy access later	52 (22.1%)	51 (21.7%)	51 (21.7%)	81 (34.5%)	2.68
I can create folders to store downloaded information resources based on subject or title	45 (19.1%)	49 (20.9%)	47 (20.0%)	94 (40.0%)	2.34
I can use reference management applications such as Mendeley to organize information resources	42 (17.9%)	58 (24.7%)	35 (14.9%)	100 (42.6%)	2.18
Agregate Mean					<b>2.56</b>

Decision rule 0.00 - 1.99 = very low, 2.00 - 2.50 = low, 2.51 – 2.99 Moderate, 3.00 – 3-49 = high, 3.50-4.00= very high.

#### **Source: Field Survey Results (2023)**

Table 4.4 presents data on the information retrieval skills of the respondents. The data presented in the Table shows that 53(22.6%) of the respondents reported that they can use Boolean operators to restrict and expand information search, 50 (21.3%) agreed to this while 52 (22.1%) disagreed and 80 (34.0%) strongly disagreed with the statement. On average, the responses on being able to use Boolean operators to restrict and expand information search has a mean of 2.58. Also, 50 (21.3%) of the respondents strongly agreed that they can filter search results by specifying the year of publication, language, location, 49 (20.9%)agreed to this while 52 (22.1%) disagreed and 84 (35.7%) strongly disagreed with the statement. On average, the

responses on being able to filter search results by specifying the year of publication, language, location has a mean of 2.59. The data also shows that 53(22.6%) of the respondents reported that they usually search the reference of a relevant article to get more relevant articles, 51 (21.7%) of the respondents agreed to this while another 51 (21.7%) disagreed and 80 (34.0%) strongly disagreed with the statement. On average, the responses on being able to usually search the reference of a relevant article to get more relevant articles has a mean of 2.62. Also, 46 (19.6%) of the respondents strongly agreed that they use Google Scholar to check for other studies that have cited the article they find useful, 52 (22.1%) agreed to this while 48 (20.4%) disagreed and 89 (37.9%) strongly disagreed with the statement. On average, the responses on being able to they use Google Scholar to check for other studies that have cited the article they find useful has a mean of 2.43.

The responses also show that 50 (21.3%) of the respondents strongly agreed that they can follow a useful link from a relevant information resource to get more information, 49 (20.9%), 49 (20.9%) agreed to this while 52 (22.1%) disagreed and 84 (35.7%) of the respondents strongly disagreed with the statement. On average, the responses on being able to follow a useful link from a relevant information resource to get more information has a mean of 2.59.

The data also shows that, 54 (23.0%) of the respondents reported that they use truncation techniques (such as \$, \*, +) to search when they are not sure of what they are searching for, 48 (20.4%) of the respondents agreed to this while 51 (21.7%) disagreed and 82(34.9%) strongly disagreed with the statement. On average, the responses on being able to use truncation techniques (such as \$, \*, +) to search when they are not sure of what they are searching for has a mean of 2.55. In addition, 47 (20.0%) of the respondents strongly agreed that they can use search engines such as

Yahoo, Google, Alta Vista, and Google Scholar, etc., 57 (24.3%) agreed to this while 49 (20.9%) disagreed and 82 (34.9%) strongly disagreed with the statement. On average, the responses on being able to they use they can use search engines such as Yahoo, Google, Alta Vista, and Google Scholar, etc., has a mean of 2.64. Furthermore, 52(22.1%) of the respondents strongly agreed that they usually pay attention to the site or database I am getting information from, 51 (21.7%) agreed to this. Another 51 (21.7%) disagreed and 81 (34.5%) strongly disagreed with the statement. On average, the responses on being able to they use they usually pay attention to the site or database they are getting information from, has a mean of 2.68.

The results also showed that, 50(21.3%) of the respondents strongly agreed that they can consider the reputation of the author of information they download from the internet, 54 (23.0%) agreed to this while 51 (21.7%) disagreed and 80 (34.0%) strongly disagreed with the statement. On average, the responses on being able to they use they can consider the reputation of the author of information I download from the internet has a mean of 2.58. Similarly, 48 (20.4%) of the respondents strongly agreed that they can easily download information resources from online databases or save web pages if found useful, 49 (20.9%) agreed to this. Meanwhile, 53 (22.6%) disagreed and 85 (36.2%) strongly disagreed with the statement. On average, the responses on being able to they can easily download information resources from online databases or save web pages if found useful has a mean of 2.64.

In the same vein, 52 (22.1%) of the respondents strongly agreed that they can easily store information on alternative devices (e.g., flash drive/USB, external hard drive), 51 (21.7%) agreed to this. Meanwhile, 51 (21.7%) disagreed and 81 (34.5%) strongly disagreed with the statement. On average, the responses on being able to store information on alternative devices (e.g., flash drive/USB, external hard drive has a

mean of 2.68. In term of information transfer from online sources, 52 (22.1%) of the respondents strongly agreed that they can transfer information resources from one computer device to another, 49 (20.9%) agreed to this. Meanwhile, 53 (22.6%) disagreed and 81 (34.5%) strongly disagreed with the statement. On average, the responses on being able to can transfer information resources from one computer device to another has a mean of 2.66. Also, 51 (21.7%) of the respondents strongly agreed that they can rename documents they download from the internet for easy access later, 52 (22.1%) agreed to this. Meanwhile, 51 (21.7%) 53 disagreed and 81 (34.5%) strongly disagreed with the statement. On average, the responses on being able to can rename documents they download from the internet for easy access later has a mean of 2.68.

However, the respondents are deficient in some areas as 45 (19.1%) of the respondents strongly agreed that they can create folders to store downloaded information resources based on subject or title, 49 (20.9%) also agreed to this. However, 47 (20.0%) disagreed and 94 (40.0%) strongly disagreed respectively. On average, the responses on being able to can create folders to store downloaded information resources based on subject or title has a mean of 2.34. the same is true for the use of reference management applications. Results show that 42 (17.9%) of the respondents strongly agreed that they can use reference management applications such as Mendeley to organize information resources, 58 (24.7% agreed to this while 35 (14.9%) disagree and 100 (42.6%) disagreed. On average, the responses on being able to use reference management applications such as Mendeley to organize information resources has a mean of 2.18. overall, the aggregate mean score of information retrieval skills among the respondents is 2.56 which is average.

#### 4.2.4 What Is the Level of Digital competencies among Legal Practitioners in Ogun State?

**Table 4.5: Level of Digital Literacy Skills Among Legal Practitioners in Ogun State.**

Item	VHE	HE	LE	VLE	Mean
<b>Device and Software skill</b>					
I can identify and use computer and other digital devices (laptops, mobile phones, tablets, etc.	42 (17.9%)	60 (25.5%)	72 (30.6%)	61 (26.0%)	2.67
I can identify and use computer software and mobile applications (MS Word, Adobe Acrobat, WPS, etc.)	40 (17.0%)	56 (23.8%)	75 (31.9%)	64 (27.2%)	2.79
I can identify data, information, and digital content needed to operate software tools and technologies	38 (16.2%)	54 (23.0%)	79 (33.6%)	64 (27.2%)	2.85
<b>Weighted Mean</b>					2.67
<b>Information and data literacy</b>					
I can clearly state my information needs	50 (21.3%)	52 (22.1%)	70 (29.8%)	63 (26.8%)	2.69
I can search for data, information, and content in digital environments	49 (20.9%)	56 (23.8%)	70 (29.8%)	60 (25.5%)	2.68
I can analyse, compare, and critically evaluate the credibility and reliability of sources of data, information, and digital content	47 (20.0%)	57 (24.3%)	65 (27.7%)	66 (28.1%)	2.78

I can store, manage, and organize digital data, information, and content	44 (18.7%)	52 (22.1%)	71 (30.2%)	68 (28.9%)	2.83
<b>Weighted Mean</b>					2.74

<b>Digital Content Creation</b>	VHE	HE	LE	VLE	Mean
I can create and edit digital contents	47 (20.0%)	55 (23.4%)	69 (29.4%)	64 (27.2%)	2.74
I can use existing information to create new useful and meaningful information	43 (18.3%)	52 (22.1%)	73 (31.1%)	67 (28.5%)	2.80
I can give understandable instructions to retrieve information from a computer system	48 (20.4%)	53 (22.6%)	68 (28.9%)	66 (28.1%)	2.79
I understand how copyright and licenses apply to data, information, and digital content	45 (19.1%)	56 (23.8%)	71 (30.2%)	63 (26.8%)	2.76
<b>Weighted Mean</b>					2.76
<b>Aggregated Mean</b>					2.72

Decision rule 0.00 - 1.99 = very low, 2.00 - 2.50 = low, 2.51 – 2.99 Moderate, 3.00 – 3.49 = high, 3.50-4.00= very high.

**Source: Field Survey Results (2023)**

Table 4.6 presents the analyses of the responses on the digital literacy skills of the respondents. Digital literacy was measured under three categories; devices and software skills, information and data literacy as well as, digital content creation skills. According to results in Table 4.4, the responses to the items under the dimension of device and software skills shows that only 17.9% of the respondents strongly agree that they can identify and use computer and other digital devices (laptops, mobile

phones, tablets, etc, 25.5% agree, 30.6% disagree, and 26% strongly disagree. On average, the responses that respondents can identify and use computer and other digital devices (laptops, mobile phones, tablets have a mean of 2.67.

Results also indicated that 17% of the respondents strongly agree that they can identify and use computer software and mobile applications (MS Word, Adobe Acrobat, WPS, etc.), 23.8% also agree. However, 31.9% of the respondents disagree, and 27.2% strongly disagree meaning that majority do not have this skill. On average, the responses that respondents can identify and use computer software and mobile applications has a mean of 2.79. Furthermore, only 16.2% of the respondents strongly agree that they can identify data, information, and digital content needed to operate software tools and technologies, 23% agree while 33.6% disagree, and 27.2% strongly disagree. On average, the responses that respondents can identify data, information, and digital content needed to operate software tools and technologies has a mean of 2.85. The weighted mean for the dimension of device and software skills is 2.67 which indicates a moderate level of skills among the respondents.

In the dimension of information and data literacy skills, 21.3% of the respondents strongly agree that they can clearly state their information needs while 22.1% agree. On the other hand, 29.8% disagree, and 26.8% strongly disagree. On average, the response that respondents can clearly state their information needs has a mean of 2.69. Results also indicated that 20.9% of the respondents strongly agree that they can search for data, information, and content in digital environments, 23.8% also agree. However, 29.8% of the respondents disagree, and 25.5% strongly disagree meaning that majority do not have this skill. On average, the responses that respondents can search for data, information, and content in digital environments, has a mean of 2.68.

Furthermore, 20% of the respondents strongly agree that they analyse, compare, and critically evaluate the credibility and reliability of sources of data, information, and digital content, 24.3% agree while 27.7% disagree, and 28.1% strongly disagree. On average, the responses that respondents can analyse, compare, and critically evaluate the credibility and reliability of sources of data, information, and digital content has a mean of 2.78. also, 18.7% of the respondents strongly agreed that they can store, manage, and organize digital data, information, and content, 22.1% agreed. On the other hand, 30.2% disagreed while 28.9% strongly disagree. On average, the responses that respondents can store, manage, and organize digital data, information, and content has a mean of 2.83. The weighted mean for the dimension of information and data literacy skills is 2.74 which indicates a moderate level of skills among the respondents.

The third dimension is digital content creation. The results show that 20% of the respondents strongly agree that they can create and edit digital contents while 23.4% agree. On the other hand, 29.4% disagree, and 27.2% % strongly disagree. On average, the response that respondents can create and edit digital contents has a mean of 2.74. Results also indicated that 18.3% of the respondents strongly agree that they can use existing information to create new useful and meaningful information, 22.1% also agree. However, 31.1% of the respondents disagree, and 25.5% strongly disagree meaning that majority do not have this skill. On average, the responses that respondents can use existing information to create new useful and meaningful information, has a mean of 2.80.

Furthermore, 20.4% of the respondents strongly agree that they can give understandable instructions to retrieve information from a computer system, 22.6% agree while 28.9% disagree, and 28.1% strongly disagree. On average, the responses

that respondents can give understandable instructions to retrieve information from a computer system has a mean of 2.79. Also, 19.1% of the respondents strongly agreed that they understand how copyright and licenses apply to data, information, and digital content, 23.8% agreed. On the other hand, 30.2% disagreed while 26.8% strongly disagree. On average, the responses that respondents understand how copyright and licenses apply to data, information, and digital content has a mean of 2.79. The weighted mean for the dimension of information and data literacy skills is 2.76 which indicates a moderate level of skills among the respondents.

All of the three dimensions combined to yield an aggregate mean score of 2.72 indicating a moderate level of digital literacy skills among the respondents.

### 4.3 Presentation of Hypotheses

**4.3.1 There will be no Significant Influence of Information Retrieval Skills on the Use of Online Legal Information Resources by Legal Practitioners in Ogun state.**

**Table 4.6 (a-c): Influence of Information Retrieval Skills on the Use of Online Legal Information Resources by Legal Practitioners in Ogun state.**

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.728 <sup>a</sup>	.530	.528	.42095

Source: Fieldwork 2022

a. Predictors: (Constant), Information Retrieval Skill

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	46.643	1	46.643	263.224	.000 <sup>b</sup>
	Residual	41.288	233	.177		

Total	87.931	234
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a. Dependent Variable: Use of Online Legal Information Resources

b. Predictors: (Constant), Information Retrieval Skill

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	1.859	.061		30.356	.000
Information Retrieval Skill	.389	.024	.728	16.224	.000

Dependent Variable: Use of Online Legal Information Resources

Table 4.6a-c presents the results of the linear regression analysis for the influence of information retrieval skills on the use of legal information resources by legal practitioners in Ogun state, Nigeria. Table 4.8a, shows that information retrieval skills has a positive and significant relationship on the use of legal information resources by legal practitioners in Ogun state, Nigeria ( $R = 0.728$ ,  $p < 0.05$ ). The coefficient of determination (Adj. R<sup>2</sup>) of 0.528 also shows that information retrieval skills explains 52.8% of the changes in the use of legal information resources by legal practitioners in Ogun state, Nigeria, while the remaining 47.2% variation is explained by other variables not investigated in this study.

Table 4.7b presents the results of ANOVA (overall model significance) of regression test which revealed that information retrieval skills has a significant influence on the use of legal information resources by legal practitioners in Ogun state, Nigeria. This can be explained by the F-value (263.224) and low p-value (0.000) which is statistically significant at 95% confidence interval. Hence, the result posited that

information retrieval skills has a significant influence on the use of legal information resources by legal practitioners in Ogun state, Nigeria.

In addition, the results of regression coefficients in table 4.7c, revealed that at 95% confidence level, a unit change in information literacy skills of legal practitioners will lead to a 0.389 increase in the use of legal information resources by legal practitioners in Ogun state, Nigeria, given that all other factor hold constant. On the strength of this result (Adj. R2 = 0.528, F(1, 234)= 263.224, p= 0.000), the null hypothesis which states that there will be no significant influence of information retrieval skills on the use of legal information resources by legal practitioners in Ogun state is rejected.

**4.3.2 There will be no Significant Influence of Digital competencies on the Use of Online Legal Information Resources by Legal Practitioners in Ogun state.**

**Table 4.7 (a-c): Influence of Digital Literacy Skills on the Use of Online Legal Information Resources by Legal Practitioners in Ogun state.**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.722 <sup>a</sup>	.522	.520	.42492

Source: Fieldwork 2022

a. Predictors: (Constant), Digital Literacy Skills

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	45.861	1	45.861	254.002	.000 <sup>b</sup>
	Residual	42.069	233	.181		
	Total	87.931	234			

b. a. Dependent Variable: Use of Online Legal Information Resources

c. b. Predictors: (Constant), Digital Literacy Skills

### Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.768	.067		26.230	.000
Digital Literacy Skills	.418	.026	.722	15.937	.000

Dependent Variable: Use of Online Legal Information Resources

Table 4.8a-c presents the results of the linear regression analysis for the influence of digital literacy skills on the use of legal information resources by legal practitioners in Ogun state, Nigeria. Table 4.8a, shows that digital literacy skills have a positive and significant relationship on the use of legal information resources by legal practitioners in Ogun state, Nigeria ( $R = 0.722$ ,  $p < 0.05$ ). The coefficient of determination (Adj.  $R^2$ ) of 0.520 also shows that information retrieval skills explains 52% of the changes in the use of legal information resources by legal practitioners in Ogun state, Nigeria, while the remaining 48% variation is explained by other variables not investigated in this study.

Table 4.7b presents the results of ANOVA (overall model significance) of regression test which revealed that digital literacy skills has a significant influence on the use of legal information resources by legal practitioners in Ogun state, Nigeria. This can be explained by the F-value (254.002) and low p-value (0.000) which is statistically significant at 95% confidence interval. Hence, the result posited that the digital literacy skills has a significant influence on the use of legal information resources by legal practitioners in Ogun state, Nigeria.

In addition, the results of regression coefficients in table 4.7c, revealed that at 95% confidence level, a unit change in information literacy skills of legal practitioners will lead to a 0.389 increase in the use of legal information resources by legal practitioners in Ogun state, Nigeria, given that all other factors are held constant. On the strength of this result (Adj. R2 = 0.528, F(1, 234)= 263.224, p= 0.000), the null hypothesis which states that there will be no significant influence of digital literacy skills on the use of legal information resources by legal practitioners in Ogun state is rejected.

**4.3.3: There will be no combined significant influence of information retrieval skills and digital literacy skills on the use of legal information resources by legal practitioners in Ogun state**

**Table 4.8 (a-c): Combined Influence of Information Retrieval Skills and Digital Literacy Skills on The Use of Legal Information Resources by Legal Practitioners in Ogun state**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.731 <sup>a</sup>	.534	.530	.42019

Source: Fieldwork 2022

a. Predictors: (Constant), Digital Literacy Skills

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	46.968	2	23.484	133.006	.000 <sup>b</sup>
	Residual	40.963	232	.177		
	Total	87.931	234			

a. a. Dependent Variable: Use of Online Legal Information Resources

b. b. Predictors: (Constant), Digital Literacy Skills, Information Retrieval Skills

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.815	.069		26.211	.000
Digital Literacy Skills	.150	.110	.258	1.356	.176
Information Retrieval Skills	.255	.102	.477	2.504	.013

Dependent Variable: Use of Online Legal Information Resources

Table 4.9a-c presents the results of the multiple regression analysis for the combined influence of digital literacy skills and information retrieval skills on the use of legal information resources by legal practitioners in Ogun state, Nigeria. From the results in Table 4.9a, both digital literacy skills and information retrieval skills have a positive and significant relationship on the use of legal information resources by legal practitioners in Ogun state, Nigeria ( $R = 0.731$ ,  $p < 0.05$ ). The coefficient of determination (Adj.  $R^2$ ) of 0.530 shows that the combination of information retrieval skills and digital literacy skills explains 53% of the changes in the use of legal information resources by legal practitioners in Ogun state, Nigeria, while the remaining 47% variation is explained by other variables not investigated in this study. Table 4.9b also presents the results of ANOVA of regression test which revealed that the combination of information retrieval skills and digital literacy skills has a significant influence on the use of legal information resources by legal practitioners in Ogun state, Nigeria. This can be explained by the F-value (133.006) and low p-value (0.000) which is statistically significant at 95% confidence interval. Hence, the result posited that the combination of information retrieval skills and digital literacy skills

has a significant influence on the use of legal information resources by legal practitioners in Ogun state, Nigeria.

In addition, the results of regression coefficients in table 4.9c, revealed that, at 95% confidence level, a unit change in digital literacy skills will lead to a 0.110 increase in the on the use of legal information resources by legal practitioners in Ogun state, Nigeria, given that all other factors are held constant. Also, at 95% confidence level, a unit change in information retrieval skills of the legal practitioners will lead to a 0.102 increase in the use of online legal information resources, given that all other factors are held constant.

However, the coefficient table also show that only information retrieval skill has a significant joint influence ( $p = 0.013$ ) while digital literacy skills ( $p = 0.176$ ) have no significant joint influence on the use of legal information resources by legal practitioners in Ogun state, Nigeria. On the strength of this result [Adj.  $R^2 = 0.103$ ,  $F(133.006) = 20.251$ ,  $p = 0.000$ ], the null hypothesis which states that there will be no significant combined influence of information retrieval skills and digital literacy skills on the use of legal information resources by legal practitioners in Ogun state is rejected.

#### **4.4 Discussion of Findings**

The study examined the influence of digital literacy skills and information retrieval skills on the use of online legal resources among legal practitioners in Ogun state. The data collection and analysis were done in accordance with the research questions and hypotheses. The study results have provided clear answers to the research questions and hypotheses. For instance, the first research question examined the frequency of online legal information resources use among the legal practitioners. The study found

a moderate level frequency of use of online legal information resources among legal practitioners in Ogun state. This can be seen in the proportion of those who are regular users of online legal information resources compared to those who rarely use. This finding tally what has been reported by other studies conducted previously

A study on the information behaviour of lawyers in Oyo state reported that, while lawyers mostly prefer to use printed information resources, majority of them are now using online databases although they are still finding it difficult to make use of Online Public Access Catalogues (OPAC)<sup>1</sup>. In another study examining the use of online information resources among lawyers affiliated to the Delhi High Court Bar Association, India, it was found that the legal practitioners frequently made use of online journal articles and the purposes of using these resources include; finding relevant information quickly and to keep abreast of legal development<sup>2</sup>. However, it must also be pointed out that, while there is a rise in the frequency of online resources use among legal practitioners, there are still large numbers who still not using them frequently.

Scholars have given reasons as to why some legal practitioners may still not be frequent users of online resources. It has been shown that, despite the advantages of online information resources, personal and institutional factors can also limit the frequency of use. This is demonstrated in a study which survey of 350 respondents examined student's access, usage and awareness of online information resources at the University College Hospital (UCH) Ibadan, Nigeria. The study found that the level of usage of the online information resources among health practitioners is low. The major problem identified is lack of information retrieval skills for exploiting online resources, thus making the level of usage of resources by medical students very low<sup>3</sup>.

Similarly, studies on the use and frequency of use of online resources have yield mixed results even among similar demographics. Evaluating the use of online resources among Indian higher institution students revealed that a large number of users have started using online journals at as many of the students were found to be frequent users of online journals and other information resources in the library<sup>4</sup>. While on the other hand, the use of internet and online resources among students of business management, found that online resources and services in varied forms are rarely used by majority of management students despite the fact the students were of the opinion that these resources are highly important for self-learning<sup>5</sup>. In analysing the second research question which is on the purpose of use of online legal information resources among legal practitioners, the study also found that legal practitioners in Ogun state mostly make use of online legal information resources for obtaining information, research and to keep abreast of latest development in the legal profession. The study finding has shown that legal practitioners have come to seen online resources as veritable source of information as they are always seeking for factual information. The use of online resources for all key legal activities and research could also be due to various advantages that have been identified in previous studies.

In a study examining the use of online information resources among lawyers affiliated to the Delhi High Court Bar Association, India, it was found that the legal practitioners frequently made use of online journal articles and the purposes of using these resources include; finding relevant information quickly and to keep abreast of legal development<sup>2</sup>. This shows the recognition that online resources have current information which not yet appear in print. These advantages of having access to the

latest information is one of the factors attracting legal practitioners to make use of online resources.

However, there seems to be a dichotomy between practicing and academic lawyers regarding the perception of online information resources. While academic lawyers seems to have totally embraced the use of online information resources, it seems practicing lawyers are still not totally convinced about the usefulness or superiority of online information resources over the traditional print resources<sup>6</sup>. The use of online information resources is also better evaluated by examining the various purposes for which different categories of users make use of the resources.

According to a particular report focusing on the purpose of use of online information resources in an Agricultural research institute, over 40% of the researchers make use online information resources, with respondents who routinely use available online journals in their institutional libraries to conduct their own research. Whereas 37% of his study respondents utilized online resources to keep themselves updated with new material coming in their area of interest, 7% used online resources to locate relevant and current information resources to support their articles' publication interests, among other things<sup>7</sup>.

In finding answer to the third research question, the study also found a moderate level of information retrieval skills among legal practitioners in Ogun State. However, there were deficiencies particularly in the area of information chaining and information organization. While this finding is supported by what has been reported in previous studies. Researchers in India observed that, due to lack of formal information retrieval training, the legal practitioners in India possess the fundamental information literacy skills but struggled with the more complex information retrieval tasks. It was also suggested that information retrieval skill levels may be predicted by their age,

practical experience, practising levels, computer literacy, and English language competence. It is certain that the inability to skillfully interact with information systems is affecting the ability of the lawyers to be effective in their profession<sup>8</sup>.

However, studies have suggested that professionals are usually able to carry out basic information search and retrieval task. In one small survey of interdisciplinary humanities and social science professors, nearly all of the respondents engaged in some form of browsing as part of their research process. There appears to be more variance in the sciences. According to surveys, physicists, chemists, and biologists identify up to half of their reading material by browsing, whereas browsing among astronomers was significantly lower, at 20%, presumably because to the field's more complete and integrated online information network<sup>9</sup>.

In term of digital literacy, it was found that the overall digital literacy skills level among the legal practitioners in Ogun State is moderate. However, it was also found that majority of them are not able to clearly state their information needs. This finding validates what has been reported in previous studies. Researchers in Pakistan reported that many legal practitioners are still relying on printed information resources due to lack of basic ICT skills which they need to interact with information systems<sup>10</sup>. Similarly, a study in Thailand revealed that even information professionals often lack the adequate level of digital literacy required to carry out the tasks satisfactorily<sup>11</sup>.

Similarly, study in a study conducted in India among legal practitioners found that lawyers in Dera Ismail Khan, Khyber Pakhtunkhwa, are generally able to identify and comprehend relevant data. Many attorneys are comfortable communicating with clients via both paper and digital means. However, most respondents still rely on traditional information retrieval tools such as the library catalogue and majority rarely use online resources to find needed information. When the have to use online

information resources, respondents often have to seek help from others more skilled in information retrieval. However, majority of them are able to identify information needs<sup>12</sup>. This has shown that, while legal professionals across the world may be making progress in the use of technology, there is a need for expert intervention to boost their digital literacy skills.

The test of hypothesis one shows that digital literacy skills have significant influence on the use of online legal information resources by legal practitioners in Ogun State. This means that legal practitioners with adequate digital literacy skills would make more frequent use of online information resources and use them for wider purposes than if they lack this skill. A study on the information-seeking behaviours of the legal professional practising at the District Bar in Multan, found that majority of respondents would rather use printed resources or consult senior colleagues than making use of online information resources due to lack of digital literacy skills<sup>13</sup>.

In Nigeria, researchers also reported that legal professionals working with various law firms in Lagos State, Nigeria are often hampered from using the available resources due to lack of digital literacy skills. The test of hypothesis revealed a significant positive relationship between digital competence and the use of online information resources<sup>14</sup>. Researchers also investigated the information behavior of legal professionals in Oyo State and found that the legal professionals are often unable to make much use of them due to lack of digital literacy skills. As a result, they rely heavily on printed version of weekly law reports, recent Supreme Court decisions, and client information. Personal experience, textbooks, journals, colleagues, partners, corporate case studies, and court records were the most frequently accessed resources<sup>15</sup>.

Similarly, the test of hypothesis two shows that information retrieval skills have significant influence on the use of online legal information resources by legal practitioners in Ogun State. The results suggest that, unless legal practitioners acquire the ability to retrieve the needed information as quickly and easily as possible, they may not make use of all the relevant resources available to them. A scholar examined the factors affecting the use of online information resources in Nigeria to determine the influence of information retrieval skills on the use of electronic resources among information professionals in Southwest region of Nigeria found that information retrieval skills of the users have a significant influence on the use of utilization of online resources. among the respondents<sup>16</sup>. In addition, researchers in India found that most of the respondents are well-versed in keywords selection while others have low level skills in conducting keywords search or in choosing the right keywords to begin their search. In the same vein, it was found that only a few of the respondents have proper understanding of Boolean Operators as a search strategy while the others lack this skill. In addition, only a few of the respondents are aware that majority of the information resources they use in their research came from scholarly databases which indicates that they are still using crude information retrieval tools. The research concluded that the respondent cannot make effective use of online information resources unless they boost their information retrieval skills.

Multiple regression analysis also showed that the combination of digital literacy skills and information retrieval skills are significant predictors of online legal information resources. Similarly, the test of hypothesis two shows that information retrieval skills have significant influence on the use of online legal information resources use among legal practitioners in Ogun State. However, it was found that only information retrieval skill has a significant joint influence on the use of online legal information

resources while digital literacy skills is not significant. This is in line with the findings of previous studies.

In a related study, researchers conducted a comparative analysis of information retrieval strategies by groups of professional. The study is survey research which focused on legal practitioners in the United Kingdom (UK). The researchers used a structured questionnaire to collect data a sample of 208 professionals such legal practitioners, recruitment experts, and healthcare information specialists. The study found that that legal practitioners are more advanced in information retrieval skills than the other professionals as they took less time to retrieve specific information than others. The finding also shows that difficulties in retrieving information often discouraged people from continuous use of online information resources<sup>17</sup>. The implication of this is that the information retrieval skills of professionals can determine the level of use of online resources.

Similarly, The results of a study conducted in Namibia also showed that law educators used e-resources for research, publishing, and teaching, but that they had trouble using them due to a lack of training and poor searching skills<sup>18</sup>. The author concluded that understanding the influence of information retrieval skills and other challenges on the use of online information resources can help librarians to develop appropriate intervention. Another, study conducted in Nigeria also showed that many lecturers have never used online databases. This can be attributed to lack of awareness or information retrieval skills<sup>19</sup>.

## Endnotes

1. W. Nwagwu, & Z., Ajibade, *Information Needs, Information Sources, Information Uses and Information-seeking Behaviours of Lawyers in Oyo State Nigeria*. **Mousaion**, 38(4). 2020
2. M. Muzzammil, & M.A., Ansari, *Usage of Electronic Information Resources Among the Lawyers of Delhi High Court Bar Association*. **Library Philosophy and Practice (e-journal)**, 2893, 2019. pp.1-5.
3. R. A. Ojo, & S. B. Alade, "Students Access, Usage and Awareness of Online Information Resources at the University College Hospital, University of Ibadan, Nigeria." **Lagos Journal of Library and Information Science**. 3(1), 2015. 16 – 24.
4. B. Kaur, & R. Verma, "Use of Online Information Resources: A Case Study of Higher Education Environment: an Empirical Analysis." **New Library World**, 111(3-4) 2009
5. B., Maharana, B. B. Sethi, & S. Behera, "Use of Internet And E-Resources By The Students Of Business Management: A survey of P. G. students of business administration, Sambalpur University. India" **International Journal of Library and Information Science**, 2(3), 2010. 45-53.
6. R.K., Bhardwaj, *Development of Online Legal Information System: Lawyers' Perceptions*. **DESIDOC Journal of Library & Information Technology**, 39(2). 2019.
7. J. Asifa. "Use of E-Resources by Users of Temperate College of Fisheries (J&K): A case study." **International Journal of Library and Information Studies** 7, no. 4: 2017, 176-184.
8. A., Martín-Martín, M., Thelwall, E. Orduna-Malea, & , E., Delgado López-Cózar *Google Scholar, Microsoft Academic, Scopus, Dimensions, Web of Science, and OpenCitations' COCI: a Multidisciplinary Comparison Of Coverage Via Citations*. **Scientometrics**, 126(1), 2021. pp.871-906.
9. M.A. Naveed, & N.A., Shah, *Information literacy in the legal workplace: Current state of lawyers' skills in Pakistan*. **Journal of Librarianship and Information Science**, 2022.p.09610006221081895.
10. M., Faizan, S. A., Munshi, & A. Mehtab Ansari, *Information Seeking Behaviour among the LIS Students at the Aligarh Muslim University*. **Challenges in Library and Information Services: Strategies and Tools**, Agra: University Prakashan, 2019, 376-388.

11. M., Jamil, M. Tariq, & K.,Shahzad, *Digital Competencies Of Legal Practitioners Of Lahore High Court Bar Association (LHCBA)*. **International Journal of Information Management Sciences**, 2(1), 2018. pp.10-23.
12. S., Kaeophanuek, J. Na-Songkhla, & Nilsook, *PHow to Enhance Digital Literacy Skills among*. **International Journal of Information and Education Technology**, 8(4), 2018. pp.292-297.
13. S.U., Jan, M. Ashfaq, & S., Ullah, "*Information Literacy Skills of Legal Practitioners In Khyber Pakhtunkhwa-Pakistan: An Empirical Study*". **Library Philosophy and Practice (e-journal)**. 7130. 2022. <https://digitalcommons.unl.edu/libphilprac/7130> 2022.
14. J., Jamshed, S.B. Naeem, & R., Bhatti, *Lawyers' Usage Patterns of District Bar Law Library of Multan*. **Pakistan Library & Information Science Journal**, 51(1). 2020.
15. Y.T. Babalola, & C., Azubuike, *Antecedents of the Use of Electronic Information Resources by Lawyers in Selected Law Firms in Lagos State, Nigeria*. **Information Impact: Journal of Information and Knowledge Management**, 9(4), 2018. pp.1-13.
16. C.O., Onyebinama, C.V. Anunobi, & A.U.O., Uzochukwu, *Effect of gender on lecturers' submission and retrieval of research output in institutional repositories in Private Universities in Southern Nigeria*. **Library Philosophy and Practice (e-journal)**. 2020.
17. T., Russell-Rose, J. Chamberlain, & L., Azzopardi, *Information Retrieval in the Workplace: A Comparison of Professional Search Practices*. **Information Processing & Management**, 54(6), 2018. pp.1042-1057.
18. A., Leonard, N.M. Hamutumwa, & C., Mnubi-Mchombu, *Use Of Electronic Resources By Law Academics: A Case Study From The University of Namibia*. **Collection and Curation**. Vol. 39 No. 3, 2020,pp. 57-68.
19. A. Uluocha, & M., Iyabo, *Information Resources Availability and Utilisation as Determinants of Law Lecturers Research Productivity*. **Journal of Applied Information Science and Technology**, 7 (2) 2014

## Chapter Five

### Conclusion

#### 5.1 Summary of Findings

The finding of the study can be summarized as follows;

1. The study found a moderate level frequency of use of online legal information resources among legal practitioners in Ogun state. The study also found that legal practitioners in Ogun state mostly make use of online legal information resources for obtaining information, research and to keep abreast of latest development in the legal profession
2. The study also found a moderate level of information retrieval skills among legal practitioners in Ogun State. However, there were deficiencies particularly in the area of information chaining and information organization.
3. In term of digital literacy, it was found that the overall digital literacy skills level among the legal practitioners in Ogun State is moderate. However, it was also found that majority of them are not able to clearly state their information needs.
4. The test of hypothesis one shows that digital literacy skills have significant influence on the use of online legal information resources by legal practitioners in Ogun State.
5. Similarly, the test of hypothesis two shows that information retrieval skills have significant influence on the use of online legal information resources by legal practitioners in Ogun State
6. Multiple regression analysis also showed that the combination of digital literacy skills and information retrieval skills are significant predictors of

online legal information resources. Similarly, the test of hypothesis two shows that information retrieval skills have significant influence on the use of online legal information resources use among legal practitioners in Ogun State. However, it was found that only information retrieval skills have significant joint influence on the use of online legal information resources while digital literacy skills is not significant.

## **5.2 Conclusion**

Legal practice is an age-old profession that is steeped in great traditions. One thing that is undisputable is the fact that effective legal practice depends on relevant, timely and abundant information resources. While legal practitioners are renowned for their willingness to invest in physical information resource, the emergence of information and communication technology has open a new vista in legal information management. Access to a global body of information resources is capable of enhancing the productivity of legal practitioners, entrench justice and stimulate national development. It is therefore encouraging that legal practitioners who are often seen as being sentimental towards printed materials are now acquiring and developing information retrieval skills and digital literacy skills which facilitate effective use of online legal information resources. It is certain that with the continue exposure to online legal information resources and the technologies that enable their effective access and utilization, legal practitioners in Nigeria can compete effortlessly with their counterparts across the world.

## **5.3 Recommendations**

In line with the findings and conclusions reached in this study, the researcher has made the following recommendations;

- i. The moderate level of online legal information resources use among legal practitioners in Ogun state requires some interventions from librarians and information service providers. The level of online information resources can be boosted through awareness creations about available online legal resources that legal practitioners can use and their benefits.
- ii. The fact that the legal practitioners possess moderate level of information retrieval skills suggests a room for improvement. In order to boost the information retrieval skills, legal practitioners should enlist the help of librarians and information service providers who can assist in boosting their information retrieval skills.
- iii. In the same vein, legal practitioners should take advantage of information and digital literacy programmes organized by librarians in order to boost their digital competences.
- iv. Furthermore, given the importance of digital literacy skills in the use of online legal information resources by legal practitioners in Ogun State, law librarians should create guides and other educational resources that makes online resources easy to use for legal practitioners
- v. Also, Law librarians and information centers serving legal practitioner should devote more resources to information retrieval skills training to enhance the information retrieval skills of the legal practitioners
- vi. Given that the combination of digital literacy skills and information retrieval skills are significant predictors of online legal information resources, it is important to help legal practitioners hone their digital literacy and information retrieval skills. In line with this, a comprehensive program should be instituted

by law libraries in Ogun state to equip the legal practitioners with robust skills to enable them take full advantage of online information resources.

#### **5.4 Contribution to Knowledge**

The current study has made several contributions to existing knowledge in term of conceptual, empirical and theoretical contribution. Conceptually, the study has defined information retrieval skills and digital literacy skills in the context of legal practitioners. It has also developed a conceptual framework which outlines the metrics of each variable and how they relate with the use of online information resources. The unique conceptual model is a useful resource for future researchers on the subject. The study has also made theoretical contributions by adapting various theories such as the Scholarly Primitive theory and the Global Digital Literacy Framework developed by the UNESCO to the use of information resources by legal practitioners.

The study has also contributed empirically by collecting and analysing empirical data that has not been previously collected by previous researchers and analysing such to test hypotheses and validating the study model. Both the data and validation of hypotheses is expected to be useful to future researcher who can confidently reproduce the study focusing on other professionals. Most importantly, the study has contributed to the society as it has awakening the interest of legal practitioners who used to avoid online information resources. With access to global information, these legal practitioners are expected to be more effective in representing their client and depening legal knowledge in Nigeria.

### **5.5 Suggestions for Further Studies**

This study has covered legal practitioners in Ogun state and how digital literacy skills and information retrieval skills affect their use of online legal information resources. However, as the study suggests that other factors apart from these two variables can be responsible for online legal information use, other researchers can also explore variables such as;

- i. Awareness and use of online legal information resources by legal practitioners in Ogun State
- ii. Digital skills training and use of online legal information resources by legal practitioners in Ogun State
- iii. Digital reference services use of online legal information resources by legal practitioners in Ogun State

Do Not Copy, Lead City University, Nigeria

## Bibliography

### Book

Araújo, T., & Casais, B. *Customer Acceptance of Shopping-Assistant Chatbots. In Marketing and Smart Technologies*. Springer, Singapore. 2020, Pp. 278-287

D. Hawthorne. *History of Online Resources. In: Holly Yu and Scott Breivold. Online Resource Management in Libraries: Research and Practice*. London: Information Science Reference, 2008.

Fraillon, J., Ainley, J., Schulz, W., Duckworth, D. And Friedman, T., *IEA International Computer and Information Literacy Study 2018 Assessment Framework*. Springer Nature. 2019. P. 74

Golenko, D., & Siber, L. *Information Literacy of Lawyers in Their Working Environment. In European Conference on Information Literacy*. Springer, Cham. 2018, pp. 78-86

Maynard, C. S. "An Introduction to the History of the Internet: A Brazilian Perspective." *In: The Internet and Health in Brazil*, Springer, Cham. 2019. 15-26.

Prasad, M.R., *Information Retrieval Skills of Research Scholars of Social Sciences: A Study. In International Conference on Asian Digital Libraries*. Springer, Cham. 2014, Pp. 344-353

Rubin, A. M., & Rubin, R. B. *Information Gathering. In Media education assessment handbook* New York: Routledge. 2020. pp. 189-212

Yadav, S.K., *Use of E-Resources by Faculty Members of Mizoram University and Babasaheb Bhimrao Ambedkar University: A Comparative Study* (Doctoral dissertation, Mizoram University). 2021

Law, N., Woo, D. & Wong, G., *A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4. 2 UNESCO*. 2018, No. 51, P. 146).

### Conference Proceeding

Fraillon, J., Ainley, J., Schulz, W., Friedman, T., & Duckworth, D. *IEA International Computer and Information Literacy Study 2018 Technical Report. In*. Amsterdam, The Netherlands: International Association for The

Houtinezhad, M. & Ghaffary, H.R., *Effective Retrieval of Related Documents Based on Spelling Correction to Improve Information Retrieval System. In 2018 3rd Conference on Swarm Intelligence and Evolutionary Computation (CSIEC)*, IEEE. 2018, Pp. 1-6

Obat, R. *Self-Assessment of Information Retrieval Skills In Using Electronic Information Resources: A Case Study Of Maseno University Students*. A Conference Paper Presented at UP Carnegie Conference On 29th March, 2019.

Shao, Y., Wu, Y., Liu, Y., Mao, J., Zhang, M., & Ma, S. *Investigating User Behavior in legal case retrieval*. In Proceedings of the 44th International ACM SIGIR Conference on Research and Development in Information Retrieval 2021, pp. 962-972.

### Internet Sources

Antoninis, M. "*Digital Literacy Skills: From A Framework To A Measure*." UNESCO UIS. Last Modified March 6, 2019. <https://uis.unesco.org/en/blog/digital-literacy-skills-framework-measure>.

Carretero, S., Vuorikari, R., & Punie, Y. Digcomp 2.1: The Digital Competence Framework for Citizens with Eight Proficiency Levels and Examples of Use (No. JRC106281). Joint Research Centre (Seville Site). 2017. [http://publications.jrc.ec.europa.eu/repository/bitstream/JRC06281/webdigcomp2.1pdf\\_\(online\).pdf](http://publications.jrc.ec.europa.eu/repository/bitstream/JRC06281/webdigcomp2.1pdf_(online).pdf)

European Union. "*The Digital Competence Framework*." EU Science Hub. 2022. [https://joint-research-centre.ec.europa.eu/digcomp/digital-competence-framework\\_en#the-digcomp-conceptual-reference-model](https://joint-research-centre.ec.europa.eu/digcomp/digital-competence-framework_en#the-digcomp-conceptual-reference-model).

Unsworth, John. "*Scholarly Primitives: What Methods Do Humanities Researchers Have in Common, And How Might Our Tools Reflect This?* King's College London. Online Verfügbar Unter <http://people.lis.illinois.edu/~unsworth/kings> (2000): 5-00.

### Journal Articles

Abduldayan, F.J., Abifarin, F.P., Oyedum, G.U. And Alhassan, J.A., *Research Data Management Practices of Chemistry Researchers in Federal Universities of Technology in Nigeria*. **Digital Library Perspectives**. 2021.

Adeniran, P.O. & Onuoha, U.D., *Influence of Information Literacy Skills on Postgraduate Students' Use of Electronic Resources in Private University Libraries in South-West, Nigeria*. **Communications and Network**, 10(04), 2018. P.164.

Adeyemi, I.O. & Issa, A.O., *Perceived Usefulness and Ease of Use as Predictors of Early-year Lawyers Satisfaction with Law Pavilion Online Law Reports*. **Buletin Al-Turas**, 26(2), 2020. pp.239-252.

Agwunobi, J.N. & Umoren, P.T., *The Use of Online Legal Information Access and Retrieval Devices in the E-Library of The Faculty of Law, University of Calabar, Nigeria*. **Journal of Library Services and Technologies**, 2(1), 2020. Pp.30-40.

- Aina, R.F. "Awareness, Accessibility and Use of Online Databases Among Academic Staff of Babcock University." **Business School and Management Review**. 3 (6). 2014. [http://arabianjbm.com/pdfs/KD\\_VOL\\_3\\_6/4.pdf](http://arabianjbm.com/pdfs/KD_VOL_3_6/4.pdf)
- Akpovire, E., Olawoyin, O.R., Adebayo, O. & Esse, U.C., *Role of Information Literacy Skills on Use of Information Resources by Medical Students in Lagos State*. **Library Philosophy and Practice (E-Journal)**. 2148. 2019. [Http://Digitalcommons.Unl.Edu/Libphilprac/2148](http://Digitalcommons.Unl.Edu/Libphilprac/2148)
- Al-Ajlan, A., *The Comparison Between Forward and Backward Chaining*. **International Journal of Machine Learning and Computing**, 5(2), 2015 P.106.
- Al-Emran, M., Mezhuyev, V., & Kamaludin, A. *Technology Acceptance Model In M-Learning Context: A Systematic Review*. **Computers & Education**, 125, 2018, 389-412.
- American Library Association, *Teaching Library and Information Retrieval Skills to Academic Administrators and Support Staff*. **College & Research Libraries News**, 49(4), 2020. pp.217-225.
- Ankamah, S., Gyesi, K., & Amponsah, V. *Use of Electronic Resources in Research and Learning in A Health Sciences Library in Ghana: An Analysis of Awareness and Perception of Users*. **Information Development**, 2022, 02666669221107378.
- Ankrah, E & Atuase, D. *The Use of Online Resources by Postgraduate Students of the University of Cape Coast*, **Library Philosophy and Practice (e-journal)**. (2018). retrieved <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=4675&context=libphilprac>
- Anyim, W.O. *Online Information Resources for Learning and Research Activities Among Undergraduate Students in The University Library*. **Journal of Computer Science and Technology Studies**, 1(1), 2019. pp.28-35.
- Anyim, W.O., *Knowledge and Use of Information Retrieval Tools by Lawyers at Miyetti Law Abuja, Nigeria*. **International Journal of Library and Information Studies**, 10(1), 2020. pp.36-44.
- Anyim, W.O., *Knowledge and Use of Information Retrieval Tools by Lawyers at Miyetti Law Abuja, Nigeria*. **International Journal of Library and Information Studies**, 10(1), 2020. Pp.36-44.
- Atanda, L. A. & Ugwulebo, J. E. *Awareness, Access and Utilization of Library Catalogue by Undergraduate Students of the College of Law, Osun State University Osogbo, Osun State, Nigeria*. **International Journal of Library and Information Science**, 9(11): 2017, 115-121

- Azonobi, I.N., Uwaifo, S.O. & Tella, A., *Determinants of Postgraduates' Use of Online Information Resources in Federal Universities in Southern Nigeria*. **International Information & Library Review**, 52(3), 2020. pp.202-215.
- Babalola, Y. T., & Azubuike, C. *Antecedents of the Use of Electronic Information Resources by Lawyers in Selected Law Firms in Lagos State, Nigeria*. **Information Impact: Journal of Information and Knowledge Management**, 9(4), 2018, 1-13.
- Babalola, Y.T. & Azubuike, C., *Antecedents of the Use of Electronic Information Resources by Lawyers in Selected Law Firms in Lagos State, Nigeria*. **Information Impact: Journal of Information and Knowledge Management**, 9(4), 2018. Pp.1-13.
- Bamigboye, O. B., Odunlade, R. O., Agboola, I. O., & Emmanuel, S. O. "Online Resources as a Panacea for Research Output of Academic Staff: A Case Study of Nigerian University." **Journal of Library and Information Sciences** 6, no. 1: 2018. 32-36.
- Bamigboye, O. B., Odunlade, R. O., Agboola, I. O., & Emmanuel, S. O. *Electronic Resources as A Panacea for Research Output of Academic Staff: A Case Study of Nigerian University*. **Journal of Library and Information Sciences** 6, no. 1: 2018. 32-36.
- Bejaković, P. And Mrnjavac, Ž., The Importance of Digital Literacy on The Labour Market. **Employee Relations: The International Journal**. Vol. 42 No. 4, 2020. Pp. 921-932. <https://doi.org/10.1108/ER-07-2019-0274>
- Bhardwaj, R.K., *Development of Online Legal Information System: Lawyers' Perceptions*. **DESIDOC Journal of Library & Information Technology**, 39(2). 2019.
- Bishoff, L. & E. G. Patton. "The PCC and OCLC: Some Reflections on 45 Years of Cooperation." **Cataloging & Classification Quarterly**: 1:8. 2019.
- Borgohain, T., & Deka, T. *A case study on awareness of Digital Information Literacy skills among students of Royal Global University Guwahati, Assam*. **International Research: Journal of Library and Information Science**, 9(3). 2019
- C. Bhukuvhani, B. Chiparausha, & D. Zuvalinyenga, "Effects of Online Information Resources Skills Training for Lecturers on Pedagogical Practices and Research Productivity." **International Journal of Education and Development Using Information and Communication Technology**, 8 (1), 2012, 16-28.

- D. Prajapati. "Online Resource Management in Libraries." **International Journal of Research in Humanities & Social Sciences**: 12-16. 2016.
- D. Schmidmaier, & H. Rader. "CD-ROM and user education." **College & Research Libraries News** 52, no. 7: 2020, 449-450.
- David-West, B.T., *Information Retrieval Tools as Predictors for Information Resources Utilization in Academic Libraries in Nigeria*. **International Journal of Knowledge Content Development & Technology**, 10(3), 2020. Pp.21-31.
- Deepmala, A. K. U., & Sharma, P. K. *Online Data Bases: A Review of Literature*. **Ilkogretim Online**, 19(4), 2020, 7111-7123.
- Dutta, A. & Mukhopadhyay, P., *Serendipity in Library Retrieval: Reinforcing Discovery Through Visualization of Bibliographic Relationships*. **SRELS Journal of Information Management**, 58(4), 2021. Pp.213-227.
- E Ankrah, & D. Atuase, "Use of Online Resources by Postgraduate Students of the University of Cape Coast," **Library Philosophy and Practice (e-journal)**. 2018. Available  
<https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=4675&context=libphilprac>
- Ebiefung, R., Adetimirin, A. & Oyewole, O., *Discipline Variation in Information Retrieval Skills and Use of Electronic Information Resources by Undergraduates in University of Uyo, Akwa Ibom State, Nigeria*. **Library Philosophy and Practice**, 2020. Pp.1-19.
- Echem, M.E., *Information Retrieval Tools and Library Physical Environment as Correlates of Library Utilization by Students in Rivers State University Library, Nigeria*. **Library Philosophy and Practice**, 2018. P.1.
- Edmond, J., Basaraba, N., Doran, M., Garnett, V., Grile, C.H., Papaki, E. & Tóth-Czifra, E., *Scholarly Primitives of Scholarly Meetings: A DH-Inspired Exploration of The Virtual Incunabular in the Time of COVID 19*. **HAL Open Science**, 2020.
- Eiriemiokhale, K. A. *Frequency Of Use and Awareness of Electronic Databases by University Lecturers in South-West, Nigeria*. **Library Philosophy & Practice**. 2020)
- Ejovwokoghene, R, E. & Okolo E. S. "Use of Online Public Access Catalogue (OPAC) in Selected University Libraries in South-South Nigeria." **Library Philosophy and Practice**: 2019. 1-23.
- Emmasiegbu, M., & Anaehobi, S. E. *Challenges to The Use of Electronic Databases by Lecturers in Government-Owned University Libraries in Anambra State, Nigeria*. **Library Philosophy and Practice**, 2021, 0\_1-16.

- Eyiolorunshe, T. A., & Eluwole, O. A. "Awareness, Accessibility and Use of Library Resources by Faculty Members of Landmark University, Nigeria." **Information Impact: Journal of Information and Knowledge Management** 8, no. 2: 2017. 118-128.
- Fakunle, S. M., Bakare, O. D., & Adeyeye, S. V. *Digital Literacy Skills as Determinants of Library Use by Undergraduate Students of Private Universities in Oyo State, Nigeria.* **Library Philosophy & Practice.** 2022
- Famaren, T.A.H. & Tofi, S.T.C., *Influence of Information Retrieval Skills of Undergraduate Students on their Effective Use of Electronic Resources in University Libraries in Benue State, Nigeria.* **Jewel Journal of Librarianship** Volume 16, Issue 3; 2021. <https://www.jeweljournals.com>
- Famaren, T.A.H. & Tofi, S.T.C., *Influence of Information Retrieval Skills of Undergraduate Students on their Effective Use of Electronic Resources in University Libraries in Benue State, Nigeria,* **Jewel Journal of Librarianship** Volume 16, Issue 3; 2021 <https://www.jeweljournals.com>
- Grant, R. "Record Keeping and Research Data Management: A Review of Perspectives." **Records Management Journal**, 2017.
- Hargittai, E., Piper, A. M., & Morris, M. R. *From Internet Access to Internet Skills: Digital Inequality Among Older Adults.* **Universal Access in the Information Society**, 18(4), 2019, 881-890.
- Hirt, J., Nordhausen, T., Appenzeller-Herzog, C. & Ewald, H., *Using Citation Tracking For Systematic Literature Searching-Study Protocol For A Scoping Review Of Methodological Studies And A Delphi Study.* **F1000Research**, 9. 2020.
- Huded, S., & Naikar, S. *Awareness, Use and Impact of Electronic Information Resources by the Patrons of Narsee Monjee Institute of Management Studies (NMIMS) Hyderabad: A Study.* **International Journal of Information Dissemination and Technology (IJIDT)**, 11(02), 2021. 87-91.
- Igbo, H. U., & Imo, N. T. *Digital Libraries And Access To Information In Nigerian Federal Universities: The Impact Of Technology Variables.* **Journal of Information & Knowledge Management**, 19(02), 2020, 2050013.
- Igere, A.M., *Users and Digital Information Resources at Benson Idahosa University Library, Benin City.* **ATBU Journal of Science Technology and Education.** 8 (4): 2020. 37-43. [www.atbuftejoste.com](http://www.atbuftejoste.com).
- Imam, A., Oyeleye, A.O. & Remilekun, A.O., *Enhancing Information Retrieval Skills Through Library User Education In College Of Education In South-West Nigeria.* **International Journal Of Information Processing And Communication (IJIPC)**, 7(2), 2019. Pp.40-49.

- Israel, O. & Nsibirwa, Z., *Information Literacy Skills In Using Electronic Information Resources*. **Library Philosophy and Practice**, 2018. P.1.
- Iyoro, A.O Nkamnebe, E.C. & Nkamnebe, C.B., "Awareness and Use of Online Resources by Lecturers in Nigeria Police Academy Wudil, Kano State, Nigeria." **Library and Information Science Digest**, 11(2), 2018. 13-21.
- Isibika, I. S. & Kavishe, G. F. *Utilisation Of Subscribed Online Resources By Library Users In Mzumbe University Library, Tanzania*. **Global Knowledge, Memory and Communication**, 67(1/2), (2018) 109–125. doi:10.1108/gkmc-09-2017-0075.
- Jamil, M., Tariq, M& Shahzad, K., *Digital Competencies of Legal Practitioners of Lahore High Court Bar Association (LHCBA)*. **International Journal of Information Management Sciences**, 2(1), 2018. pp.10-23.
- Jamshed, J., Naeem, S.B. & Bhatti, R., *Lawyers' Usage Patterns of District Bar Law Library of Multan*. **Pakistan Library & Information Science Journal**, 51(1). 2020.
- Jan, S.U., Ashfaq, M. & Ullah, S., "Information Literacy Skills of Legal Practitioners in Khyber Pakhtunkhwa-Pakistan: An Empirical Study". **Library Philosophy and Practice (E-Journal)**. 7130. 2022. <https://Digitalcommons.Unl.Edu/Libphilprac/7130> 2022.
- Jin K. Y., Reichert F., Cagasan L.P., Jr, De La Torre J. & Law N., *Measuring Digital Literacy Across Three Age Cohorts: Exploring the Dimensionality and Performance Differences*, **Computers & Education**, 2020, Doi: <https://doi.org/10.1016/j.compedu.2020.103968>.2019.
- Johnston, L. & Jeffryes, J., *Data management skills needed by structural engineering students: Case study at the University of Minnesota*. **Journal of Professional Issues in Engineering Education and Practice**, 140(2), 2014. p.05013002.
- Joshua, O. S., Liviticus, A., & Felix, T. S. *Awareness and Utilisation of Online Subscription Databases Among Postgraduate Students in Ahmadu Bello University, Zaria*. **Covenant Journal of Library And Information Science**. 2022
- K. A Becker. "CD-ROM: A Primer." **College & Research Libraries News** 48, no. 7 2019: 388-393.
- Kaeophanuek, S., Na-Songkhla, J. & Nilsook, P., *How to Enhance Digital Literacy Skills Among*. **International Journal of Information and Education Technology**, 8(4), 2018. Pp.292-297.
- Kamposiori, C., Mahony, S. & Warwick, C., *The Impact of Digitization and Digital Resource Design on the Scholarly Workflow in Art History*. **International Journal for Digital Art History**, (4), 2019. Pp.3-11.

- Kelefa Mwantimwa and Emmanuel Elia. "Utilisation of E-Resources to Support Teaching and Research in Higher Learning Institutions, Tanzania." **University of Dares Salaam Library Journal** Vol 12, No2; (2017) 98-123.
- Khan, A., Masrek, M.N., Mahmood, K. & Qutab, S. "Factors Influencing the Adoption of Digital Reference Services Among the University Librarians in Pakistan." **The Online Library**, 2017.
- Krishnan, R., *Use and Impact of Electronic Journals Among the Users of Periyar University in Salem, Tamilnadu, India.* **Library Philosophy and Practice (E-Journal)**, 2199. 2019.
- Kumar, R., & Gupta, D. K. *Re-Structuring Library Resources and Services in IIT Delhi Library: Analytical Study from Users' Perspective.* **Collection and Curation**. Vol. 41 No. 1, 2022, pp. 9-16
- Kumar, R., & Kumar, A. *Investigating the Information Seeking Behaviour of Academic Lawyers of Kurukshetra University Kurukshetra (Haryana) And Chaudhary Devi Lal University, Sirsa (Haryana): A Comparative Study.* **Library Philosophy and Practice**, 2020, 1-14.
- Kunwar Singh and Akhilesh Kumar Varma. "Use of E-Resources by The Students and Researchers: With Special Reference to Faculty of Arts, BHU, Varanasi." **Knowledge Librarian** 4, no. 4: 2017. 35-47.
- Leonard, A., Hamutumwa, N.M. And Mnubi-Mchombu, C., *Use of Electronic Resources by Law Academics: A Case Study from The University of Namibia.* **Collection and Curation**. 2020.
- M. O.Deans, , & C. F Durrant,. *An Investigation into The Knowledge and Use of Online Library Resources in Jamaican Community Colleges.* **Journal of Web Librarianship**, 10(4), 239-266; 2016 doi:10.1080/19322909.2016.1231601
- Mallaiah, T., *Digital Information Literacy Skills Among Faculty Members of Engineering Colleges in Manalore, Karnataka: A Study.* **International Journal of Digital Library Services**, 7(1), 2017. Pp.28-37.
- Marcos-Pablos, S. & García-Peñalvo, F.J., *Information Retrieval Methodology for Aiding Scientific Database Search.* **Soft Computing**, 24(8), 2020. Pp.5551-5560.
- Martín-Martín, A., Thelwall, M., Orduna-Malea, E. & Delgado López-Cózar, E., *Google Scholar, Microsoft Academic, Scopus, Dimensions, Web of Science, and OpenCitations' COCI: a Multidisciplinary Comparison of Coverage Via Citations.* **Scientometrics**, 126(1), 2021. pp.871-906.

- McGrew, S., Breakstone, J., Ortega, T., Smith, M., & Wineburg, S. *Can Students Evaluate Online Sources? Learning From Assessments of Civic Online Reasoning*. **Theory & Research in Social Education**, 46(2), 2018, 165-193.
- Miço, H., & Cungu, J. *The Need for Digital Education in the Teaching Profession: A Path toward Using the European Digital Competence Framework in Albania*. **IAFOR Journal of Education**, 10(2), 2022, 29-50.
- Muzzammil, M. & Ansari, M.A., *Usage of Online Information Resources Among the Lawyers of Delhi High Court Bar Association*. **Library Philosophy and Practice** (e-journal), 2893, 2019. pp.1-5.
- Muzzammil, M. and Ansari, M.A., *Usage of Electronic Information Resources Among the Lawyers of Delhi High Court Bar Association*. **Library Philosophy and Practice (e-journal)**, 2893, 2019. pp.1-5.
- N. B. Ukachi. "Information literacy of students as a correlate of their use of online resources in university libraries in Nigeria." **The Online Library**, 2015.
- Naik, A. S., & Biradar, B. S. *Use of e-Resources by Faculty and Students of Sri Siddaganga College of Pharmacy, Tumakuru, Karnataka: A Study*. **International Journal of Information Dissemination and Technology**, 11(1), 2021. 56-62.
- Nasar, Z., Jaffry, S.W. & Malik, M.K., *Information Extraction from Scientific Articles: A Survey*. **Scientometrics**, 117(3), 2018. Pp.1931-1990.
- Naveed, M.A. & Shah, N.A., *Information Literacy in The Legal Workplace: Current State of Lawyers' Skills in Pakistan*. **Journal of Librarianship and Information Science**, 2022. P.09610006221081895.
- Ngema, N.S. & Masenya, T.M., *Use of Online Books among Postgraduate Students in the Department of Information Studies at the University of Zululand, South Africa*. **Mousaion**, 38(2). 2020.
- Nieminen, P., Uma, E., Pal, S., Laitala, M.L., Lappalainen, O.P. & Varghese, E., *Information Retrieval and Awareness about Evidence-Based Dentistry among Dental Undergraduate Students—A Comparative Study between Students from Malaysia and Finland*. **Dentistry Journal**, 8(3), 2020. p.103.
- Nwagwu, W. and Ajibade, Z., *Information Needs, Information Sources, Information Uses and Information-seeking Behaviours of Lawyers in Oyo State Nigeria*. **Mousaion**, 38(4). 2020.
- Nwokike, O. & Osisianwo, T., *Comparing the Use of Electronic Information Resources by Lecturers in Babcock University and Tai Solarin University of Education in Ogun State, Nigeria*. **Library Philosophy and Practice**, 2020. Pp.1-19.

- Nwone, S. & Mutula, S., *Information Seeking Behaviour of the Professoriate in Selected Federal Universities in Southwest Nigeria*. **South African Journal of Libraries and Information Science**, 84(1), 2018. pp.20-34.
- Odede, I. R. & Zawedde, N "Information Literacy Skills in using Electronic Information Resources". **Library Philosophy and Practice** (e-journal). 2018, 1947. <http://digitalcommons.unl.edu/libphilprac/1947>
- Odede, I.R. & Jiyane, G.V., *Exploring Dimensional Constructs of Digital Literacy Skills for Higher Education*. **Library Philosophy and Practice (E-Journal)**. 2806. 2019. <https://>
- Okiki, O. C., & Ireko, B. Z. *Awareness and Use of Digital Educational Databases by Final Year Students in Selected Private Universities in Southwest Nigeria*. **Nigerian Online Journal of Educational Sciences and Technology**, 4(1), 2022, 131-142.
- Olabode, O., *Impact of Electronic Resources Use on Academic Performance of Undergraduates in Nigeria*. **Information Impact: Journal of Information and Knowledge Management**, 7(2), 2016. pp.56-65.
- Oladokun, T. A., & Adeoye, A. A. *Utilization of Digital Information Resources by Undergraduates at Lead City University, Ibadan Nigeria*. **Library Philosophy & Practice**. 2022
- Olaniyi, S.A. & Oyewole, O., *Effort Expectancy as Correlates of Online Information Resources use by Undergraduates of Ajayi Crowther University, Oyo State, Nigeria*. **Covenant Journal of Library and Information Science**. 2018.
- Oloyede, O.E. Allison, G.O. & Iwu-James, J. "Impact of Information Literacy Skill on The Usage Of Online Information Resources Among Academic Librarians Of Private Universities In South-West, Nigeria." **Library Philosophy and Practice**, 2019.
- Omosekejimi, A. F., Eghworo, O. R., & Ogo, E. P. *Usage of Electronic Information Resources (EIRs) By Undergraduate Students of Federal University of Petroleum Resources Effurun*. **Information and Knowledge Management** (Vol. 5, No. 4, 2015, pp. 94-103.
- Onah, J.C., Adayi, I.O., Okonkwo, E.A. & Onyebuchi, G.U., *Information Retrieval Skills as It Correlates to Undergraduate Use Of Library Information Resources At A Nigerian University*. **Library Philosophy and Practice (E-Journal)**, 4586. 2020.
- Onah, J.C., Adayi, I.O., Okonkwo, E.A. & Onyebuchi, G.U., *Information Retrieval Skills as It Correlates to Undergraduate Use of Library Information*

- Resources at A Nigerian University. Library Philosophy and Practice (E-Journal)*, 4586. 2020.
- Onyebinama, C.O., Anunobi, C.V. & Uzochukwu, A.U.O., *Effect of Gender On Lecturers' Submission and Retrieval of Research Output in Institutional Repositories in Private Universities In Southern Nigeria. Library Philosophy and Practice (E-Journal)*. 2020.
- Oshiname, R.M. And Ajuwon, G.A., *Awareness And Use Of Reference Managers By Resident Doctors In Nigeria. Journal Of Health Information And Librarianship*, 5(1), 2020. Pp.93-107.
- Oyadeyi, A.E., Oladokun, T.A., Shorunke, O.A. & Fasola, O.S., *Return on Investment (ROI) In Subscription Databases by Nigerian Academic Libraries: A Survey. Folia Toruniensia*, 21, 2021. pp.63-85.
- Pangrazio, L., Godhe, A.L. & Ledesma, A.G.L., *What Is Digital Literacy? A Comparative Review Of Publications Across Three Language Contexts. E-Learning And Digital Media*, 17(6), 2020. Pp.442-459.
- Rafi, M., Jianming, Z. & Ahmad, K., *Technology Integration For Students' Information And Digital Literacy Education In Academic Libraries. Information Discovery and Delivery*. 2019.
- Rafique, A., Ameen, K. And Arshad, A., *Use Patterns Of E-Journals Among The Science Community: A Transaction Log Analysis. The Electronic Library*. 2019.
- Russell-Rose, T., Chamberlain, J. & Azzopardi, L., *Information Retrieval In The Workplace: A Comparison Of Professional Search Practices. Information Processing & Management*, 54(6), 2018. Pp.1042-1057.
- Sahoo, S., Mahapatra, R. K., & Pandey, S. "Usability and Return on Investment (ROI) of Online Information Resources: An Evaluative Study on Selected Scientific & Research Institutes Libraries in Odisha." **Library Philosophy and Practice**, 2019  
(<https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=7133&context=libphilprac>)
- Salvador-Oliván, J. A., Marco-Cuenca, G., & Arquero-Avilés, R. *Errors in search strategies used in systematic reviews and their effects on information retrieval. Journal of the Medical Library Association: JMLA*, 107(2), 2019, 210.
- Sandeep Kumar, V., Gireesh Kumar, T. K., & Aditya, T. *Electronic Resources of Libraries of First-Generation Indian Institute of Management (IIM): An evaluative Analysis. Library Philosophy and Practice (e-journal)*, (5356), 2021, 1-13.

- Sari, F. M., & Oktaviani, L. *Undergraduate Students' Views on the Use of Online Learning Platform During COVID-19 Pandemic*. **Teknosastik**, 19(1), 2021, 41-47.
- Setyawan, V.P. & Kurniawan, I.D., *Reversal of the Burden of Proof and Recovery of State Assets Due to Corruption*. **Jatiswara**, 37(1), 2022. pp.1-12.
- Shivaraja, O. "Online Information Sources: The Effective Use By The Academic Community." **International Journal of Library and Information Science** 7, no. 1: 2015, 14-20.
- Sileshi, K., *Digital Information Resources Access and Utilization in Ethiopian Civil Service University Library*. **Journal of African Development Studies**, 7(1), 2020. pp.31-47.
- Nwone S. A. & Mutula S. M. "A Review of Information Behaviour Literature on Professoriates across Disciplinary Fields" **Library Philosophy and Practice (e-journal)**. 2843. 2019.
- Singh, P. K., & Prasad, H. N. "Use of online resources: A study of Indian Agricultural Research Institute, New Delhi." **International Journal of Information Research**, 3(2), 2013, 141-168.
- Singh, A. & Panackal, N., *A Study of Knowledge Management in Education for Research Sustainability—An Overview*. **Indian Journal of Commerce and Management Studies**, 10(2), 2019. Pp.01-07.
- Stark, M. "Using the Online Catalog Effectively." **College & Research Libraries News** 45, no. 6: 2019. 301-306.
- Subha, S. & Natarajan, N.O., *Utilization and Impact of Online Information Resources among the Faculty Members of Arts & Science Colleges in Erode District, Tamil Nadu: A Case Study*. **Asian Journal of Information Science & Technology (AJIST)**, 9(1). 2019.
- Tella, A., Orim, F., Ibrahim, D. M., & Memudu, S. A. "The Use of Online Resources by Academic Staff at The University of Ilorin, Nigeria." **Journal Of Education and Information Technology**, 2018.
- Thanuskodi, S., *Information Search Strategies among LIS Professionals: A Case Study of Selected Institutions in India*. **Library Philosophy & Practice**. 2019.
- Uluocha, A. & Iyabo, M., *Information Resources Availability and Utilisation as Determinants of Law Lecturers Research Productivity*. **Journal of Applied Information Science and Technology**, 7 (2) 2014
- Umar, H. & Sokari, V., *Challenges Associated with Utilization of Legal Information Resources by Postgraduate Law Students in Federal Universities of Northern*

*Nigeria. Information Impact: Journal of Information and Knowledge Management*, 11(1), 2020. Pp.40-47.

Van Noortwijk, K., *Integrated Legal Information Retrieval: New Developments and Educational Challenges. European Journal of Law and Technology*, 8(1). 2017.

VanScoy, A., Julien, H. & Harding, A., *Integration of information behavior into reference and information services education: A syllabus study. Journal of Education for Library and Information Science*, 2021. p.e20210008.

Xu, A. Kirk, H. & L. Akerman. "From MARC to BIBFRAME 2.0: crosswalks." *Cataloging & Classification Quarterly* 56, no. (2-3) 2018: 224-250.

Yadav, S. & Kumar, M., *Information Seeking Behavior of Under Graduate Students of English Discipline: A Comparative Study of Miranda House College and Vivekananda College, University of Delhi. Library Philosophy and Practice (E-Journal)*, 2021

Yangyuen, W., Nuntapichai, S. & Phetkaew, T., *A Conceptual Framework for An Information Behavior Model Based on the Collaboration Perspective Between User and System for Information Retrieval. Journal of Information Science Theory and Practice* 8(3): 2020, 30-46. <https://doi.org/10.1633/JISTaP.2020.8.3.3>

Yeboah, E.B., *Resource Description and Organization in Academic Libraries in Ghana: Evidence from the Practice of Three Top Universities. Cataloging & Classification Quarterly*, 60(3-4), 2022. pp.225-247.

Yu H. H. "The role of Academic Libraries in Research Data Service (RDS) Provision." *The Online Library*, 2017.

### **Theses and Dissertations**

Ferdows, J. *An Empirical Investigation of Information Retrieval Skills Among Undergraduates Students of Dhaka University*. Master's Thesis, University of Dhaka. 2014.

Kaluba, C., & Mulauzi, F. *Information Needs and Information Seeking Behaviour of Judges and Lawyers: A Study of the Judiciary Superior Courts in Lusaka, Zambia*. Doctoral dissertation, 2019.

Mathabela, N.N., *Information Needs and Information Seeking Behaviour of Private Practicing Lawyers in Swaziland: A Case Study of the Law Society of Swaziland* Doctoral dissertation, 2018.

Odede, I.O., *Information Literacy Self-Efficacy in the Use of Electronic Information Resources by Library and Information Science Postgraduate Students in South South Nigeria* (Doctoral dissertation). 2018.

Zhao, S, "A Study of Graduate Students' Information Literacy Needs in the Online Resource Environment". Online Theses and Dissertations. 7747: (2019). <https://scholar.uwindsor.ca/etd/7747>

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## Questionnaire

Lead City University Ibadan

Faculty of Communication and Information Science

Department of Information Management

Dear respondent,

I crave your indulgence to elicit information on an academic research titled: Information Retrieval skills, Digital literacy and the use of online information resources among legal professionals, through the filling of this questionnaire. I promise that all the information provided will be solely used for academic purpose. Thanks for your honest response.

Yours faithfully,

SANNI Bukunola Funmi

### Section A

1. Gender: Male [ ] Female [ ]
2. Experience: 1-4 years, [ ] 5-9 years [ ] 10-15 years [ ] 16 years and above [ ]
3. Employe: Public, [ ] Private, [ ] Corporate Organisations [ ] Self-Employed [ ]
4. Bar (Zone): Ilaro [ ]; Abeokuta [ ]; Sagamu [ ]; Ota [ ]

### Section B: Frequency of use of electronic law resources

Please indicate how frequently you make use of the following information resources

S/N	Electronic Resources	Information	Very Often	Often	Sometimes	Rarely
1	Lexis Nexis					
2	Criminal Justice Abstract					
3	West Law					
4	Kluwer Arbitration					
5	Quick Law					
6	ProQuest					
7	Law Pavillion					
8	Biblio Online					
9	Legalpedia					
1	Search Engines (google,					

	firefox, ask.com etc)				
	Others				

### Section Bii: Purpose of use of Online Information Resources

S/N	I use online information resource:	Very Often	Often	Sometimes	Rarely
1.	To search for case laws				
2.	To prepare legal documents and correspondence.				
3.	To access statutes, acts and decrees				
4.	To locate potential witness and experts				
5.	To conduct case background research				
6.	To prepare for conferences and seminars				
7.	To better understand complex legal issues				
8.	To keep abreast of new development in the judiciary				
9.	To keep abreast of general information				

### Section C: Information Retrieval Skills

Please rate your level of retrieval skills by responding to the following statement.

Instruction; Tick the box as appropriate: 4= Very high extent, (VHE) 3= High Extent, (HE) 2= Low Extent (LE)and 1= Very Low Extent (VLE)

S/N	Statements	VHE	HE	LE	VLE
	<b>Information Searching</b>				
	<b>Direct Search</b>				
1.	I can formulate searches using combination of keywords or concepts				
2.	I can use Boolean operators to restrict and expand my information search;				
3.	I can filter search results by specifying the year of publication, language, location etc.				
	<b>Chaining</b>				
4.	"I search the reference of a relevant articles to get more relevant articles;				
5.	I use google scholar to check for other studies who have cited the article I find useful				
6.	I can follow a useful link from a relevant information resources to get more information				

	<b>Browsing</b>				
7.	I use truncations techniques (such as \$, *, +) to search when I am not sure of what I am searching for” etc.				
8.	Use of search engines such as Yahoo, Google, Alta Visa and Google scholar etc.				
	<b>Information Assessment</b>				
9.	I usually pay attention to site or database I am getting information from				
10.	I consider the reputation of the author of information I download from the internet				
	<b>Information Collection</b>				
	<b>Information Gathering</b>				
11.	<b>I can easily</b> download information resources from online databases or save web pages in found useful				
12.	Storing information on alternative devices e.g. flash disc/USB, external hard drive				
13.	I can transfer information resources from one computer device to another				
	<b>Information Organisation</b>				
14.	I can rename documents I download from the internet for easy access later				
15.	I can create folder to store downloaded information resources based on subject or title				
16.	I can use reference management application such as Mendeley to organize information resources				

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## Section D: Digital competence

Please rate your level of digital competence by responding to the following statements

Instruction; Tick the box as appropriate: 4= Very high extent, (VHE) 3= High Extent, (HE) 2= Low Extent (LE)and 1= Very Low Extent (VLE)

S/N	Statements	VHE	HE	LE	VLE
	<b>Device and Software skill</b>				
1.	I can identify and use computer and other digital devices (laptops, mobile phones, tablets etc),				
2.	I can identify and use computer software and mobile applications (MS Word, Adobe Acrobat, WPS, etc),				
3.	I can identify data, information and digital content needed to operate software tools and technologies.				
	<b>Information and data literacy</b>				
4.	I can clearly state my information needs,				
5.	I can search for data, information and content in digital environments,				
6.	I can analyse, compare and critically evaluate the credibility and reliability of sources of data, information and digital content.				
7.	I can store, manage and organise digital data, information and content.				
	<b>Digital Content Creation</b>				
8.	I can create and edit digital contents.				
9.	I can use existing information to create new useful and meaningful information				
10.	I can give understandable instructions to retrieve information from a computer system.				
11.	I understand how copyright and licences apply to data, information and digital content.				

## **Bio-data**

### **A. Personal Data**

**1. Full Name:** Bukunola Funmi SANMI

Address: 58\11 Ifelodun Avenue, Akingbala, Elewera, Abeokuta, Ogun State

Email : bukmore.sb@gmail.com

**2. Date and Place of Birth:** 27<sup>th</sup> Feb 1980 / Abeokuta

**3. Nationality:** Nigerian

**4. Name and Address of Next of Kin:** Oluwadarasimi Faith Sanni

**Add.** As above

### **B. Educational Background: Bachelor of Library & Inf. Sc.**

**Educational Institutions attended with dates**

#### **1. Primary Education:**

**Lisabi Model Primary School, Igbein, Abeokuta, Ogun State.**

**1986-1991**

#### **2. Secondary Education:**

**i. St. John's High School Kuto, Abeokuta, Ogun State**

**1992-1997**

**ii. Ketu College Igan Alade, Yewa, Ogun State**

**1999-2000**

#### **3. Higher Educational Institutions: Tai Solarin University of Education,**

**Ijagun, Ijebu-Ode**

**2007-2012**

### **C. Working Experience with Dates**

**1. Ogun State Judiciary, Olipakala, Kobape Rd, Abeokuta, Ogun State**

**2002- Date.**

**D. Awards and Fellowships:**

Best Librarian of the Year -2012

Best Dressed Officer(Female) 2018

Best Dressed Officer (Female) 2019

**Referees:**

**Bolarinwa Odeyale Esq,**

\_\_\_\_\_

**Signature**

\_\_\_\_\_

**Date**

*Do Not Copy, Lead City University, Nigeria*

### **The University Compliance Certification**

This is to certify that this thesis by Bukunola Funmi SANNI with Matric No LCU/PG/002550 in the Department of Information Management, Lead City University, Ibadan, is in FULL compliance with the approved university format and style.

*Do Not Copy, Lead City University, Nigeria*

\_\_\_\_\_  
**Name**

\_\_\_\_\_  
**Signature**