CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Academics' reputations and careers in universities are often judged by the number and quality of research they produce. Therefore, research competence is a necessity. Research competence refers to the skills, knowledge, and abilities that individuals possess to conduct effective and high-quality research. It encompasses a range of capabilities that are essential for successfully planning, executing, and communicating research findings. Through research that advances knowledge in various fields of human endeavour, universities around the world have been agents of progress in their local communities and beyond. Research competency is a product of conscious actions set by an organization to achieve specific set goals.

Research competence is critical and of utmost importance to the existence, growth and competitive advantage of any university in the world and specifically, Nigeria. While Universities need academic staff to get the job done, how well it is done affects a whole lot with regards to student recruitment, positive ranking and ability to secure funds, general reputation, as well as attraction and retention of top-notch lecturers. One must also add that competence here would directly impact the fiscal posture of a university, through increased revenue from more subscription to its programs by students. Invariably, the need for enhanced competence necessitates the quest for performance appraisal.

Research competence refers to the effectiveness and efficiency with which researchers generate new knowledge, publish scientific papers, and contribute to their respective fields and this is always appraised by institution of higher learning via regular appraise which brought about the concept of publish or perish. Academic research is significant because it gives academicians a forum for their ideas and helps them build a reputation for their expertise and originality. To add to the body of knowledge, researchers conduct systematic efforts to answer questions and solve problems. It’s the application of scientific rigour to the investigation of a particular problem, worry, or issue. It’s an organised effort to figure out what's going on so that it can be explained, predicted, and managed. As a result of research, there are more chances for academics all over the world to work together and make connections with one another.

This allows for the study of both the national and international dimensions of research competences, since researchers can talk to their peers and specialists all over the world. Knowledge is either created or unlocked through the process of research. Transnational trend analysis through human and instrumental cooperation can be the focus of research highlighted by knowledge creation in collaborative studies. A scholar thought of research as a vital means of finding out information about the world or human culture and that the primary goal of research is knowledge generation and dissemination. However, because of the ever-changing nature of human culture, environment and the society at large, there is always pressure to adapt to novel circumstances and this is best done by carrying out researches. As opined above, as society develops, new problems and opportunities arises, necessitating the idea of innovation. Because of this, people are engaged in research to push the boundaries of understanding further.

A researcher has claimed that every three to four years, professors and lecturers at both the junior and senior levels are examined for promotion based on their research production, particularly in the form of scholarly publications and patents. Writing, reading, and publishing research findings in professionally revered journals, and having that work available online or otherwise visible to the public, all contribute to competence. Research competence can be measured, in part, by counting the number of publications in which researchers cite their own work as a primary or secondary source. Research is done by faculty members, and their efficiency can be gauged in a number of ways. Research competence in universities is typically evaluated by looking at outputs like publications, grants from outside sources, and citations to those publications.

Measures of competence often focus on the number of manuscripts that are either accepted for publication, in press, or published. Journal articles (both revered and non-revered), books, book chapters, monographs, conference papers, and grant proposals for both external and internal funding all count as published works. However, competence goes beyond the number of publications it involves the quality of the publication serving as frontiers of knowledge and serving a solution to issues for which the study was carried out. The role of academic staff in higher education institutions extends beyond teaching; it encompasses conducting research, generating new knowledge, and contributing to the academic community. Research competence refers to the ability of academic staff to design, conduct, and disseminate scholarly research effectively. It encompasses various aspects, including formulating research questions, selecting appropriate methodologies, analyzing data, and communicating findings.

However, the sheer volume and diverse nature of electronic information resources necessitate a high level of information literacy skills to navigate, filter, and utilize the available resources effectively. Academic staff must be proficient in utilizing search strategies, understanding database structures, evaluating online sources, and managing electronic citations. Whether a university or any other organization, performance appraisal is a part of the management system that starts with the recruitment of trainable staff and continues to include efforts to ensure suitability for promotion, training and periodic evaluation of employee's performance measured against the job's stated requirements. It is a form of human resource management that enables the employer to assess the performance of the employee to give guidelines or advice for improving the organization's efficiency and effectiveness.

In Nigeria, just as it is obtained in other climes, the university has standard criteria for the recruitment of academic staff as the staff needs of a university is provided for, chiefly by the National Universities Commission's requirement as stated in their rules. What is critical to this process remains the identification of the tools and strategies for performance appraisal and the variation in the application of the same tools from university to university are largely based on the nature of the ownership and general objectives and challenges of the university. Globally, universities are recognized as centers for the production, accumulation and transfer of knowledge. Universities all over the world are mandated to perform three core functions namely: teaching, research and community service, with the overall aim to produce trained manpower for various areas of national development. Scholars averse that the mission of higher education is to advance knowledge, create knowledge, disseminate knowledge through research and provide service to the community.

Universities are like greenhouses where various types of seeds grow into plants and are sent out to the world. While there has been a tendency to place teaching over research and community service delivery, it is increasingly clear that research is extremely critical and important if universities are to serve as engines of national development. Research in academic institutions serves multiple purposes. It is the avenue for the academic institution to drive intellectual, social, economic and cultural development of their immediate environments and, by extension, the global community. Conducting research is essential in promoting the prosperity of a nation. Research is also the best way for scholars to sharpen their minds, keep abreast of developments in their field of interest and become renown in their chosen profession.

Information literacy skills are essential for academic staff as they engage in rigorous research, stay updated with current developments in their fields, and provide accurate and reliable information to their students. Information literacy is defined as "the ability to think critically about content, widen self-directed explorations, and prepare for organized learning" in any subject, learning setting, or degree of schooling. It was stressed that information literacy is linked to making autonomous (informed) decisions about oneself. This should also be reflected in communication patterns and the social structuring of various interactions. The authors work with an example in the healthcare setting, where an informed patient should make decisions about their treatment. Still, a paternalistic narrative prevails in the healthcare setting that does not assume any patient information. A text can be situated within the broader context of whether information literacy enables the abandonment of entrenched power structures in society that reduce autonomy and freedom or whether it enhances these structures (because of its unevenness).

Besides, in today's knowledge-driven society, the ability to locate, evaluate, and effectively use information has become a crucial skill set. This is particularly true in academic settings, where research competence plays a pivotal role in the advancement of knowledge and the overall success of academic staff. The increasing availability and reliance on electronic information resources have further amplified the need for individuals to possess information literacy skills to navigate and make the best use of these resources. A popular and widely used measures of information literacy skills is the information literacy model propounded by Society of College, National and University Libraries otherwise known as SCONUL. The model emphasized seven measures based on which a person is adjudged and perceived to be information literate. The measures are called seven pillar which are ability to locate, analyze, evaluate, use and present information.

An information literate person understands how information is organized, electronically and in print sources, how libraries provide access to resources, how digital technologies are providing collaborative tools to create and share information. Evaluation of information is the ability of academic staff to review the research process, compare and evaluate information. He/she understands the information landscape of their teaching/research context, the issues of quality, accuracy, relevance, reputation and credibility relating to information sources and the importance of citation in their research context. Management of information is the ability of academic staff to organize information professionally and ethically. An information literate person understands their responsibility to be honest in all aspects of information handling and dissemination (for example, copyright, plagiarism and intellectual property issues). Lastly, presentation of information is about an academic staffs' ability to apply the knowledge gained in presenting the results of their research,

synthesizing new and old information and data to create new knowledge, and disseminating it in a variety of ways.

They include but not limited to PubMed, Directory of Open Access Journals (DOAJ), JSTOR, Emerald, ProQuest, ERIC, IEEE Xplore, ScienceDirect, and so on. These platforms provide a vast collection of information and facilitate research and learning across various disciplines. Overall, electronic information resources offer increased accessibility, availability, searchability, up-to-date information, space efficiency, portability, cost-effectiveness, multimedia capabilities, and environmental sustainability compared to physical resources. These advantages have significantly transformed the way we access and utilize information in various domains. To the academic world and to the academicians and the library as the information nerve centre of any academic institution electronic information resources is inevitable and invaluable resources for viable research.

However, the ability to navigate through the vast ocean of information and extract relevant and reliable data has become a critical challenge. Information literacy, defined as the ability to identify, locate, evaluate, and effectively use information, has gained significant attention in educational and research settings. In today's digital age, information literacy skills and the effective utilization of Electronic Information Resources play a vital role in the research competence of academic staff. With the vast amount of information available online, it has become increasingly important for researchers to possess the necessary skills to locate, evaluate, and effectively use digital resources. This study aims to investigate the relationship between information literacy skills, the utilization of online information resources, and the research competence of academic staff at Public Universities in Ogun State, Nigeria

1.2 Statement of the Problem

In the rapidly evolving landscape of higher education and scholarly research, the critical role of information literacy, the utilization of electronic information resources, and the cultivation of research competence among academic staff members has garnered increasing attention. Academic staff members are often confronted with a vast and dynamic array of digital information sources and tools. However, a significant proportion of them may lack adequate information literacy skills, hindering their ability to effectively locate, evaluate, and utilize electronic information resources for research and teaching purposes. The proliferation of electronic databases, online journals, and digital libraries has revolutionized the way academic research is conducted. Yet, disparities exist in the access and utilization of these resources, which can impact the quality and relevance of academic work.

The competency of academic staff in undertaking rigorous and innovative research is pivotal for the advancement of knowledge and the success of their institutions. However, there may be gaps in the research competence of academic staff members, encompassing methodological, analytical, and dissemination skills, which may hinder their contribution to scholarly activities. These based on Extant literature and observation may be attributed to the drastic deficiencies' information literacy skill and low usage of electronic information resources. Moreover, dearth of literature was found as regard the influence of information literacy and use of electronic resources with regards to their influence on research competence. It against these backdrops the study sets out to investigate the influence of information literacy skill, use of electronic information resources on research competence of academic staff in public universities, Ogun State, Nigeria.

1.3 Research Objectives

The main objective of this study is to investigate the influence of information literacy skill and use of electronic information resources on research competence of academic staff in public universities, Ogun State. The specific objectives are to:

i. Identify the level of research competence of academic staff of public universities in Ogun State, Nigeria;
ii. Establish the level of information literacy skills of the academic staff of the public universities in Ogun State, Nigeria; and
iii. Examine the use of electronic information resources by academic staff of public universities in Ogun State, Nigeria.

1.4 Research Questions

This study set out the following questions to be answered:

i. What is the level of research competence of academic staff of public universities in Ogun State, Nigeria?
ii. What is the level of information literacy skills of the academic staff of the public universities in Ogun State, Nigeria? and
iii. What is the use of electronic information resources by academic staff of public universities in Ogun State, Nigeria?

1.5 Significance of the Study

The study titled "*information literacy skills, use of online information resources, and research competence of academic staff of public universities*" holds great significance for various categories of stakeholders such as Management of institution of higher learning, lecturers, policy makers, Universities of higher learning, researchers and body of knowledge. To the management of Institutions of Higher Learning, the findings of this study are crucial for the management of institutions of higher learning as it provides insights into the information literacy skills, online information resource usage, and research competence of academic staff. This information can help the management in developing appropriate strategies, policies, and interventions to enhance the overall research quality and effectiveness of their academic staff. To the lecturers, Lecturers play a vital role in shaping the educational experience of students.

This study's significance to lecturers lies in its potential to identify areas of improvement in information literacy skills and research competence. By understanding these areas, lecturers can refine their teaching methodologies, incorporate effective Electronic Information Resources into their courses, and guide students towards better research practices. Policy makers in the field of education can benefit from this study by gaining insights into the current state of information literacy skills and research competence among academic staff. These findings can inform the development of policies and initiatives aimed at promoting a research- oriented culture, enhancing digital literacy, and fostering the effective use of Electronic Information Resources within higher education institutions. For universities, this study holds significance in assessing the overall research capacity and quality of their academic staff.

Researchers in the field of information literacy and educational technology can benefit from this study by gaining valuable insights into the current trends and challenges related to information literacy skills, online information resource usage, and research competence among academic staff. This study can provide a foundation for further research and exploration in this area, contributing to the body of knowledge on effective strategies for promoting information literacy and research competence.

1.6 Scope of the Study

This study focuses on information literacy skills, use of electronic information resources and research competence of academic staff in public universities in Ogun State. It covers the Universities in the Lagos State and targets the academic staffs in the universities. The dependent variable is research competency of academic staff which would be measured by content knowledge, methodological skill, evaluation/operationalization of research and ethical issues in research. The independent variables are information literacy skills and use of electronic information resources.

Use of Electronic Information Resources being one of the independent variables will be measured with the duo of frequency and purpose of use. The second independent variable information literacy skill will be measured by the seven pillars of information literacy as modelled by SCONUL which are ability to identify, scope, plan, gather, evaluate, manage and present information ethically. The respondents for the study are the academic staff of the four public universities in Ogun State.

1.7 Operational Definitions of Terms

Research Competency: is the set of skills, knowledge, and abilities possessed by academic staff of public universities in Ogun State to conduct effective and high-quality research in terms of quality and quantity.

Content Knowledge: This refers to the academic staff of public universities in Lagos knowledge of the subject matter that is being researched, the theories, the scientific standards, literature research and reflection.

Information Literacy Skills: The is the ability of academic staff of public universities in Ogun State to find, evaluate, organize, use, and communicate information in all its various formats.

Electronic Information Resources: These are information resources in digital formats, downloadable through the internet, that are relevant to the research and academic needs of academic staff in public universities in Ogun State.

Use Electronic Information Resources: This refers to the use of scholarly databases like Emerald, ProQuest, PubMed, Ajol and so on by academic staff of public universities in Ogun State.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter attempt a review of literature on the topic under study. Literatures will therefore be reviewed under the following subheadings:

2.2 Conceptual Review

2.3 Theoretical Frameworks

2.4 Empirical Review

2.5 Conceptual Model

2.6 Summary of Literature Review

2.2 Conceptual Review

2.2.1 Research Competence of Academic Staff

Competency refers to a set of demonstrated abilities, skills, knowledge, and behaviors that enable an individual to perform tasks, fulfill responsibilities, and achieve desired outcomes effectively and efficiently within a specific context. Competencies can encompass a wide range of areas, from technical skills and expertise to interpersonal skills and emotional intelligence. Competencies are often used as a framework for assessing and evaluating an individual's suitability for a particular role, job, or task. They provide a way to measure and communicate the qualifications and capabilities required for successful performance. Competency frameworks are commonly used in various fields, including education, workforce development, human resources, and professional development. However, in the field of academics, the greatest and most revered of all competence

is research competence because that is where sound knowledge is derived from and a worth living life is built on.

Research competence, also known as research skills or research proficiency, refers to the ability to effectively and efficiently conduct research activities. These activities involve gathering, analyzing, evaluating, and interpreting information and data to address specific questions, problems, or objectives. Research competence is crucial in various academic, professional, and personal contexts, as it enables individuals to contribute to the advancement of knowledge, make informed decisions, and solve complex problems. Research outputs are used as a yard stick for measuring success in an academic circle which in turn may lead to promotion and probably increase in salary. It was stated that research output is not only meant for solving practical problems but it also provides opportunities in acquiring new ideas that will help to improve human understanding, social, economic and cultural phenomena.

Globally, it is acceptable that research output plays an important role in advancing the prosperity of a Nation and its citizens in this era of knowledge base. Research output has two major components which are knowledge creation and knowledge dissemination. It has been ascertained that the benefits of research is the advancement of knowledge being created and facts, which are communicated in an academic environment through scholarly seminars, conferences and publications in the universities. An academic staff is being recognized and respected through the quality and quantity of research work produced and published. Academic staffs are lecturers ranging from graduate assistant cadre to the highest level known as the professorial cadre. It has been known that academic staff members in any higher institution, especially the universities are given time and opportunities to carry out research programs that will help them to be able to share

their acquired knowledge with their students through lectures and with others in the drive to develop professional skills and impact on their own field of specialization to other members of the society.

The major function of academic staff in the university is to carry out research and teaching with the aim of producing trained human resources for academic and social development. It is made clear in the schemes of service that regulate the appointments and promotions of academic staff at these institutes that the academic staff member's level of research output is a very important factor in the appointment and promotion process. They are required to gain appointments and promotions on evidence of satisfying research publications in renowned journals, conference proceedings, and seminar papers in addition to educational credentials and experience in the relevant field because of their work and positions. This is in addition to the educational qualifications and experience in the relevant field. According to the Federal Republic of Nigeria, 2000, different academic positions inside research institutes require varying numbers of publications, and the possession of a doctorate in a relevant discipline is required to be appointed as a Principal Research Officer within these research institutes.

The importance of research competence in the career advancement and prestige of researchers in these institutes is quite obvious; as a result, it is not treated with levity by academic staff or employers. Because of this, the popular saying that "publish or perish" that is said in academics is also practiced in the research institutes in the South-West region of Nigeria. Research is a core activity in any university. This is obvious because conducting researches is the best avenue to expand the frontiers of knowledge and drive development in a bid to make the world a better place.

The importance of research can be better understood from the fact that universities around the world are ranked based on the quality and quantity of research output. Furthermore, conducting research is also beneficial to the researcher.

Innovative and high impact researches improve the profile of the researcher among their peers and expedite their career progression. Research output is exemplified by peer reviewed research reports published in professional journals or presented at scholarly conferences, published book or chapter, etc. research competence is therefore the measure of the quantity of these publications by researchers over a particular period of time. As observed, despite the fact that Nigeria has several policy documents that highlights the importance of research as a catalyst for national development, Nigerian scholars are not performing up to expectation in term of research and innovation. Studies conducted on research competence in South-west and Northern Nigeria respectively show that scholars in Nigerian universities published an average of one research paper per year.

This rate of research publication is very low compared to scholars in developed countries. As the unit responsible for the selection, acquisition, organization and dissemination of relevant information resources to facilitate research activities in academic institutions, the academic library has come under scrutiny to justify its existence in the light of low research output and general quality of scholarship in tertiary institutions. A researcher opined that availability of relevant information resources has a significant relationship with research competence of scholars in an institution. This is backed by a finding who averred that availability and accessibility of relevant Information resources are essential to knowledge acquisition, learning and research. Therefore, various studies have examined the availability of information in academic libraries. It was also

reported that some law libraries in Nigerian are unable to effectively meet the needs of their patrons because of insufficient and outdated collection, furthermore, most of the resources are irrelevant and lack variety.

However, some researcher believes that the advancement in Information and Communication Technology (ICT) has provided the library with a great opportunity to meet the diverse need of researchers. The integration of digital information resources, according to has expanded access to information for teaching, learning, and research than the traditional print through the use of information and communications technologies (ICTs) by library patrons. Today, libraries can make information resources available to their patrons beyond what they have under their roofs to enhance research and facility research competency. Times Higher Education (THE) World University Rankings highlight the significance of academic research. There are five main factors that are taken into account when determining a university's standing in the Times Higher Education (THE) World University Rankings. These include the school's capacity for instruction, research, citations, an international focus, and industry funding as a percentage of total faculty pay. One of the most important aspects of a college education is research.

Volunteering and teaching are two others. Research entails looking at a topic in depth in order to learn more about it and gain new perspectives on it. Extremely important, it is the defining factor in the credibility of any academic establishment. It's a major factor in determining who gets a rise in the faculty, therefore it's important, sought-after, and demanding of top-notch engagement and output. Research is an ongoing process through which we seek the truth or get closer to it. Research identifies fresh issues, amasses facts about those issues, analyses the data, draws conclusions, and

proposes solutions. Research involves extensive inquiry, analysis, explanation, and verification of facts. Mistakes are fixed and knowledge is expanded thanks to research.

Research-based knowledge is always neutral and empirical. Knowledge obtained from research is always reasonable, sound, and founded on practice. Research publications in any field of specialization is aimed at providing current information for growth, progress, development and improved society. Research competence is very critical to academic staff worldwide. Decision regarding tenure and promotion for individual academic members are frequently linked to scholarly achievement. Prestige of programs and institutions often is built on the scholarly accomplishments of their academic staff. Academic researchers publish to establish their claim to a specific result at specific result at a specific time. When researchers publish their academic works, it is an avenue for their peers to access their research and communicate with other colleagues interested in a similar subject area. One of the core missions of research institutions is to advance, create and disseminate knowledge through research and provide service to the community.

Through research, research institutes contribute to innovation for mobilization of resources in the country. However, in many African countries including Nigeria, research is faced with numerous challenges. These includes research capacity financial constraints, other resources (physical development of research institutions) research and policy, relevance publication of findings, social, political and cultural context in which research processes occur, as well as information technology. The research competence of a professor is measured by the number of scholarly articles he or she has published in peer-reviewed journals, the number of conference proceedings in which he or she

has participated, the number of books and/or chapters he or she has written, the number of dissertations and projects he or she has supervised for graduate students, the number of patents and licenses he or she has obtained, the number of monographs he or she has written, the number of experimental designs he or she.

The level of research output in Nigerian universities must be examined together with other factors. Researchers' output can be measured, in part, by tallying the number of articles they wrote, whether they relied on primary or secondary sources for their findings. Publications in academic journals and conference proceedings, books and book chapters, original research, advising graduate students on theses and projects, grants, editorial work, patents, licences, monographs, experimental designs, creative works, public debates, and other activities are all examples of research competence. It has been noted that the number of articles published in reputable refereed journals and conference proceedings is a major or most significant indicator of academic staff competence in the university.

The number and calibre of articles published by a university's affiliated faculty are two measures of the institution's research output. Many departments use a faculty member's "publication count" as a measure of their performance, although some researchers have argued that this unfairly places a heavy burden on them. It is important for universities to provide its faculty with the resources they need to conduct research and publish their findings in peer-reviewed publications published in other countries. Universities in Nigeria need to be fully engaged in their research responsibilities if the country is to join the mainstream of scientific, technological, and economic progress. The scientific and technological advancements that Nigerians devour with uncontrolled favour have

their origins in the country's many excellent educational and research facilities. It is also very important for every research outfit to show appreciable levels of research competence, this is an indication of its trends, contribution to development and researchers' preferences for publication outputs.

Research competence could be defined as research product and research effort of which researcher produces. Research competence in this study means the publications published by academic staff in the research institutes surveyed: such publications include books, journal articles, chapters in books, conference papers and proceedings, technical reports, patents, scientific peer- review bulletin, occasional papers, monographs, co-authored books, theses/dissertations and journal publications published. In order to achieve given mandates, research institutes in South-West Nigeria employed personnel, which of course include researchers who undertake researches relating to the mandates given to various institutes. By virtue of the nature of these institutes, the researchers are line staff and as such very important for the attainment of the objectives of these institutes.

In addition, the 77 researchers are regarded as academic staff as they belong to Academic Staff Union of Nigerian Research Institutes, which is an umbrella labour union of all the academic staff in research institutes in Nigeria. The academic staff members also include Librarians that work in these institutes. According to the Scheme of Service in the Federal Civil Service of Nigeria published by the Office of Head of Service of the Federation, researchers and librarians are categorized as academic staff members. Research competence is very important in the appointment and promotion of academic staff of these institutes as it is spelt out in the schemes of service

governing their appointments and promotions. By virtue of their work and positions, apart from educational qualifications and cognate experience, they are required to get appointments and promotions on evidence of satisfying research publications in reputable journals, conference proceedings and seminar papers.

The numbers of publications vary with different academic positions in the research institutes and possession of PhD in relevant field is a prerequisite for appointment of Principal Research Officer in these research institutes. The importance of research competence in the career advancement and prestige of researchers in these institutes is quite obvious as such it is not taken with levity by academic staff and employers, so the popular saying that "publish or perish ''that is said in academics is also practiced in the research institutes in the South-West, Nigeria. Research provides a good platform for academic staff members to become successful academics. This is because research develops academic knowledge and reinforces the skills needed for effective knowledge. However, it was observed that both the quantity and quality of research output from these institutions in Nigeria are generally too low to make the desired impact on national development.

Worse still, there is a general lack of research focus by the higher education sector in relation to Nigeria's national Research & Development needs. A study by Centre for Higher Education Transformation (CHIET) concluded that the knowledge of the academics scores production flagship African universities is not strong enough to enable universities to make a sustainable contribution to development. The challenges of research in Africa are not purely academic. They are caused by failure of the governments to put in place policies that recognize the fundamental impact research activities could have on governance and efficient use of public resources.

Consequently, research has been accorded insufficient attention and resources by governments and institutions of higher education. The new millennium witnessed the arrival of global rankings of universities which have soon become a worldwide phenomenon.

Studies have demonstrated varying effects of Internet applications on the research competence of scientists. A scholar asserts that, in scholars' opinions, access to databases and computer support are facilitators to research competence. A researcher however, aver that Nigerian academic scientist heavily dependent on printed information sources, especially journals, indexes and abstracts. The study reveals that 64.4 per cent of academic scientists sampled each had a computer while 50 per cent had access to and were using Internet facilities. A study undertaken by a researcher suggests the Internet connectivity improved faculty collaboration and facilitated supervision of distance education and external research students. Some scholar surveyed how academics have been using Internet services and resources. They note that 100 per cent of the United States' universities are connected to the Internet. Academics were among the first set of people to participate in Internet activities.

A scholar emphasized the importance of the Internet as a learning tool, saying it provides easy and quick access to almost unlimited global information as well as easy and fast communication. It was noted that discussion groups on the Internet might be the best forum for information exchange. He observes that academics are the most represented part of the society within Internet discussion groups, as they have greater access to the Information Superhighway through university settings. It was claims that information retrieval from electronic journals and full-text databases correlate positively with the number of journal articles, conference presentations, and reports published.

Searching on peers' Websites was associated with the number of working papers and conference presentations published. Thus, those scientists who used electronic resources published more journal articles and other reports than their peers who did not use Internet- based tools as much.

The terms "ascriptive factors" and "intelligence" and "personality of the individual" refer to a faculty member's gender and age at a specific point in time, respectively. For this study, research competency is measured by the quartet of content knowledge, Methodological skills, Evaluative and Operationalization skills and research ethic skills as modified by a group of researchers. Content knowledge is one of the competencies required to become a researcher. It refers to the knowledge of the subject matter that is being researched. According to a researcher's model, content knowledge is one of the key competencies that a professional must have in order to carry out research. The researcher in his view came up with nine inevitable skills that must be possessed by a potential researcher. These abilities are: The skill of formulating a research question by working backwards from what is already known to what should be known.

Learn to develop a contextual framework by analysing the stated problem's occurrence within the entire and the setting you intend to study. Assess the current knowledge base by reading up on what has been written regarding the identified gap in understanding. It is necessary to analyse the problem's components independently. Get your data collection instruments ready by deciding what kind of research will be performed, what instruments will be used, and who will validate and answer them based on the study's objectives. Create a research model: after you have a mental picture of the issue or event you want to investigate, map out the steps you'll take to examine it

and accomplish your goals for the study. Familiarity with data analysis methods is essential, as is an understanding that processing options vary according to study design and measurement scale.

The influence of self-efficacy on research competence is multifaceted and can be observed in several key aspects. Firstly, self-efficacy impacts academic staff's goal-setting behavior. Individuals with high self-efficacy tend to set ambitious but realistic goals for themselves. They believe that their efforts and capabilities will lead to successful outcomes. This self-assurance drives them to set challenging research goals, pursue complex projects, and aim for innovative contributions to their respective fields. As a result, their research competence tends to be higher, as they consistently strive for excellence and are more likely to persevere in the face of obstacles. Secondly, self-efficacy influences the level of effort individuals invest in their research endeavors. Academic staff with high self-efficacy are more likely to engage in sustained and focused efforts towards their research projects. They perceive their work as meaningful and believe in their ability to overcome difficulties and produce valuable outcomes.

This strong belief in their own capabilities serves as a motivating factor, encouraging them to put in the necessary time, effort, and persistence required for successful research outcomes. Furthermore, self-efficacy affects the approach individuals take when confronted with challenges or setbacks in their research. Academic staff with high self-efficacy view challenges as opportunities for growth and problem-solving rather than insurmountable barriers. They are more likely to persist in the face of setbacks, adapt their strategies, seek additional resources or support, and maintain their enthusiasm for their research pursuits. This resilience and positive mindset contribute to their overall research competence by enabling them to navigate through difficulties

and find alternative solutions. Additionally, self-efficacy influences the selection and utilization of coping strategies.

Individuals with high self-efficacy tend to employ adaptive coping strategies when faced with research-related stressors. They are more likely to proactively seek support, collaborate with others, engage in effective time management, and prioritize tasks strategically. By effectively managing stress and utilizing appropriate coping mechanisms, they can maintain focus, competence, and a healthy work-life balance, thus enhancing their overall research competence. More so, self-efficacy can impact academic staff's engagement in research-related activities. Individuals with high self-efficacy exhibit greater initiative and proactivity in pursuing research opportunities. They are more likely to seek out collaborations, publish their work, present at conferences, and engage in knowledge exchange activities. Their belief in their own abilities fuels their confidence to showcase their research, contribute to academic discourse, and expand their professional network, all of which can lead to increased research competence and impact.

Researchers measured resources such as the percentage of worktime spent on research, the number of research assistants, and the proportion of respondents who reported that they "always" get the grants they seek. They discovered that the percentage of worktime spent on research is a significant factor in determining high research performance. One of the methods that can be utilized as a reward to assist in the process of motivating workers is promotion, for instance. Some academics are of the opinion that promotions serve as a source of motivation for increased levels of research output. For instance, one study found that academic institutions with higher levels of education were able to alter the research behavior of their academic staff by manipulating the reward

structure for promotion. Some researches came to the conclusion that tenured faculty members are more driven by the rewards associated with intrinsic motivation, whereas untenured faculty members are more motivated by the benefits associated with extrinsic motivation.

Pay increases are not sufficiently linked to research competence to be considered an effective incentive. On the other hand, tenure and promotion are powerful motivators that lead to increased staff research output. The majority of educational institutions have developed comprehensive written papers that outline the performance requirements for academic staff. The amount of labor that is required for lectures and research papers on an annual basis varies from university to university. Every academic year, both the departmental and individual perspectives of academic staff members' professional performance are taken into consideration throughout the evaluation process. According to the research, academic rank and tenure are both connected to an individual's level of research competence. To give just one example, members of the faculty who have higher professorial ranks tend to have larger publishing totals.

2.2.2 Information Literacy Skills of Academic Staff

Information literacy skills refer to a set of abilities and competencies that enable individuals to effectively find, evaluate, interpret, use, and communicate information. In the digital age, where information is abundant and easily accessible, information literacy has become increasingly important. Information literacy involves skills like Identifying information needs. Recognizing when information is needed and defining the scope of the information required for a specific purpose or task. Accessing information. knowing how to access information from various sources, such as libraries, databases, websites, and online platforms. Evaluating information, assessing the

reliability, credibility, and relevance of information by considering its source, authority, accuracy, currency, and objectivity.

Organizing and managing information: Effectively organizing and storing information for easy retrieval and future reference. This includes using tools like bookmarks, citations, databases, and file management systems. Analyzing and interpreting information, critically examining information, identifying key ideas, detecting bias, and understanding different perspectives or interpretations. Synthesizing and integrating information. combining information from multiple sources to create new insights, develop informed opinions, or produce original work. Ethical and responsible use of information, Understanding and adhering to copyright laws, intellectual property rights, and ethical principles related to the use and dissemination of information.

A group of researchers opined that academic staff are expected to exhibit high level of information literacy skills by virtue of their carrier and exposure to research. This is because research process requires them to formulate need for information, identify and evaluate sources, retrieve the needed information and synthesis the information in order to create new knowledge. The first skill an information literate person needs to possess is the skill to identify the extent of information need. For information literate person to identify information need, it is important for such individual to adopt diverse techniques to gather information. However, several factors might influence their information need. Some of the factors identified are: range of available information sources; use of information; background motivation; individual characteristics of users and consequences of information.

The steps in identifying information need as noted include: recognize the need for information, identify the extent of information you need, define the information need, decide how to find the information and initiate the search process. Identifying information need focuses on individuals' ability to recognize and understand the level of their information need. That is, people are able to identify first a gap in knowledge, identify and define questions, transform the questions into a topic, assess his/her knowledge on the topic and use information to initiate a search. In other words, to become information literate, an individual need to continuously develop skill to articulate the type of information required. The report of IL skills at a State University in California suggested that the skill to identify information need involves formulating and defining the research problems in an understandable and accessible manner.

Also, some authors opined that identifying information need is the ability to define the necessary information needed, nature of the information and why the information is needed. This skill also requires an individual to identify the exact research problem, type of information to solve the identified problem, itemize the specific questions and hypothesize from the problem, which provides a clear focus of what is needed. The ability to identify the extent of information need involves the ability to understand and articulate the scope of information needed. Identifying information need is the ability to define clear and key concepts, extensive access to information resources and formulate an effective search technique to be used to access the information. It also opined that identifying the extent of information need is the ability to identify when there is need for information and phrase questions to provide answers to the needed information. In addition, skills to recognize and identify when information is needed and the extent it is needed provide answers to research questions.

The behaviour of an information literate begins with recognizing that information is needed for task-related activities and to make proper decisions. Therefore, looking at the concept of ability to identify information need from the perspective of problem-solving and answering research questions, an information literate should be able to identify their information need, display confidence in their ability to solve problems and know the relevant the information needed. There are however conflicting assessments regarding the level of information literacy skills possessed by Nigerian scholars. Some Nigerian researchers observed that most Nigerian university lecturers lack relevant ICT literacy skills so they are often unable to identify relevant sources of information or retrieve them through the use of ICT because they are not ICT literate.

It was also reported that the lecturers in their study reported a high level of information literacy which enables them to formulate information needs, identify and evaluate sources, retrieve needed information and synthesis the information to create new knowledge. This inconsonance may be due to time lapse between the two studies which has enabled more lecturers to acquire or improve on their information literacy skills. However, there are few disagreements to the assertion that information literacy skills affect the level of research competence of scholars. It was reported that training lecturers on the use of electronic information resources in a Zimbabwean University resulted in improved use of the library databases and an increase in research output.

Defining Information Literacy as the ability to define one's information needs and then to access, evaluate, process and use retrieved information strategically. Therefore, any researcher who is unable to do this may not be as productive as expected. This is further reinforced by the study which found that researchers with information and media literacy are more productive than those

without. At the centre of intellectual and scholarly research are academics that are expected to show interest in the creation, dissemination as well as preservation of knowledge. Academics are lecturers ranging from graduate assistant cadre to professorial cadre in Nigerian universities context. It was note that academic staff members in any higher institution, especially universities, are provided the opportunity to focus on an area of inquiry, develop a research programme and later share the knowledge with students and others in the drive to develop professional skills and impact on a field and society, as a whole.

Information literacy skills acquisition is an aspect of information literacy and may be seen as the process of gaining the tools that assist the development of information literacy in an individual. Information literacy implies the intellectual capabilities involved in using information, as distinct from the technical know-how required for using information technologies that hold or deliver data. This latter ability can be characterized as information technology literacy. Academics with low information literacy skill may spend too much time retrieving information owing to problems they may encounter when seeking information especially in electronic information resources.

A study examined the information literacy skills of faculty members: A case study of the University of Lahore, Pakistan. The study showed that majority of the faculty members possessed skills needed to determine the existence of needed information and to organize, analyse, evaluate and fully understand the found information. The analysis further showed that those faculty members were less in number who had ability to identify and define information, to find needed information, to communicate and presented the information and to evaluate the reliability of information resources.

Those faculty members were very small who had skills to utilize, dispose, and realize the need and to create information which they had needed. The reviewed literature has shown that, among other factors, research competence is impacted by the level and quality of available information resources as well as the information literacy skills of the researcher who must navigate his way through an ocean of available information both within and beyond the academic library. It is therefore important to evaluate how significant are these factors to research output of the targeted population.

2.2.3 Use Electronic Information Resources by Academic Staff

E-resources are those resources which include documents in electronic or e-format that can be accessed via Internet in digital library environment. E-resources are that electronic product that delivers a collection of data, be it text, image collection, other multimedia products like numerical, graphical mode for commercially available for library and information centers. These may be delivered on CD-ROM, DVD, over the Internet and so on. Providing access to e-resources is a service to help library users to find e-Databases, e- Journals, e-magazines, e-Books/e-Audio/e-images, Data/GIS, Digital Library Projects, Electronic exhibitions, e-Subject Guide, e-Newsletters, e- Conferences proceedings and web search tools on a range of topic. Many of the e-resources are freely available to anyone over Internet access but some are commercial resources. ICT is one of the important buzzwords of today's world. It has changed the society into information society and is way of life.

The digitization of information in print media has brought a new concept altogether in all the fields of human life and this has marked the beginning of the information era. An electronic resource is defined as a resource which requires computer access or any electronic product that delivers a collection of data, be it referring to full text bases, electronic journals, image collections, other multimedia products and numerical, graphical or time based, as a commercially available title that has been published with an aim to being marketed. These may be delivered on CD ROM, on tape, via Internet and so on. These are more useful due to inherent capabilities for manipulation and searching, providing information access is cheaper to acquiring information resources, savings in storage and maintenance etc. and sometimes the electronic form is the only alternative.

The developments in scientific publishing and the pricing policies of publishers posed new challenges and opportunities for academic libraries in purchasing and managing the serials within their restricted budget. The library and information services of the 21st century are fast changing. With the rapid development of electronic publishing, libraries are not only acquiring reading materials such as printed books and journals but also arranging for providing access to various learning resources in electronic form. The web resources and the use of web as a tool is changing the way users live and learn. While in the early phase, the World Wide Web was mainly used for push type applications to provide information and resources to users, the development of Web 2.0 and the spread of open sources and shared use concept have focused on user generated content and applications for sharing. This has led to the rapid development and popularity of electronic resources. E-Resources are occupying a significant portion of the global literature.

They refer to information sources in electronic form. The different types of e-resources are, E-books, E-journals, Databases, CDs/DVDs, E-conference proceedings, E- Reports, E-Maps, E-Pictures/Photographs, E-Manuscripts, E-Theses, E-Newspaper, Internet/Websites - Listservs, Newsgroups, Subject Gateways, USENET, FAQs. The tremendous change in the nature of information environment in the universities, occasioned by the information revolution, in which information has now migrated from print to electronic form, has made information easily accessible in the universities. Information is now accessible on the computers, the CD-ROMs, the Internet or other digital networks. Due to the relative ease of accessibility of electronic information resources, there have been corresponding innovations and a shift in paradigm in information seeking behavior of academic staff in the universities toward electronic resources from the print. The advancing digital age is therefore characterized with applications, access and use of ICTs and electronic resources in the academic environments for teaching, learning, and research.

In the universities the academic staffs essentially are involved in research and they need access to modern ICTs and electronic resources to support their research activities. Notably, a scholar argued "that one does not have to use technology because it is there, but one uses it if there is a genuine advantage". In view of the seeming benefits of ICTs and electronic resources in the universities, scholars have been investigating the pattern of access and use of these new tools and facilities in research process in a global perspective. Although, there are existing research into the provision, access and use of electronic resources in developing countries, there is still need for more research in this area. Observably, the increasing interest in research in this field is attributed to the rising expectation on the potential effect of electronic resources on the information seeking behavior of academic staff in global arena.

A study investigated the extent of use of electronic resources by academic staff in three countries (Australia, Finland, and the United States). It was found that the extent of use of e-resources by academic staff varies from country to country. From the results more than half of the respondents were using electronic resources in the U.S., while two-thirds of the academic staff used e-resources in Australia. Furthermore, electronic resources were predominantly used in research activities in all the surveyed universities in the three countries. The paper concluded that the use of electronic resources is an integral part of the research process in Australia, Finland and the U.S. Another study on five U.S. universities has also shown that academics are significantly accessing and using e-resources (particularly the electronic journals) that are available in the library collection rather than the print.

The Electronic Information Resources exist primarily for the benefit of faculty and staff at higher learning institutions, so it is crucial that these individuals are aware of and make good use of them. To this end, researchers at the University of Cape Coast surveyed professors on their familiarity with and use of online databases. The majority of professors (92%) in the poll said they had heard of online databases. In addition, the results showed that professors were already familiar with the databases. The (BIONNE) database was the least well-known of all of them. Another study also surveyed doctoral research students at India's Goa University about their experiences with online databases. According to the findings, every single academic surveyed reported being quite knowledgeable about and comfortable using academic databases. Some researchers have found that at least 80% of the lecturers polled at the University of Ibadan and the University of Lagos, both of which have medical schools, are aware of the availability of electronic information resources (e-resources).

Low awareness of the electronic resources, especially TEEAL and AGORA, the two agricultural databases in the library collection, was reported by the researchers who conducted a study to determine the level of familiarity with, motivation for, and use of the agricultural information resources available at the library of Nigeria's Federal University of Technology, Akure. They interpret this as evidence that the library has failed to adequately promote its electronic resources. One polytechnic, one college of education, and two universities in Imo State, Nigeria were utilized in a study to gauge faculty members' familiarity with and adoption of information and communication technologies. Access to ICTs was determined to be the greatest barrier against use, even though half of respondents were already using computers and the Internet.

In addition, another researcher assessed the academic and research use of IT resources at Delta State University, Nigeria, across all levels of staff (academic, senior non-academic, and junior non-academic). Academic employees were found to be the most frequent users of ICTs, with 92.2% reporting computer use, 13.7% reporting LAN use, and a significant majority reporting Internet use for academic and research purposes. The study's findings were fascinating. Electronic database awareness was shown to be lower than utilization in research by Kwando at the University of Ghana, Legon. In spite of respondents' claims to the contrary, database use was widespread. However, the results of a researcher's survey contradicted this conclusion. While the general computer usage was high due to the cutting-edge ICT infrastructure, her research at the Ashesi University College in Ghana found that users were unaware of the databases subscribed to by the library on behalf of the college.

The research also showed that database use is quite low. They concluded that people simply did not know that these databases existed, which led to poor usage. It's general knowledge that research resources from every subject of study may be found online, including academic publications, electronic databases, online library catalogues, grey literature, and more. The proliferation of information made possible by the Internet as led to a substantial growth in the number of online libraries and other electronic information sources. In order to be more productive in their endeavors, information users now have access to more information, more of it in more formats, and more methods to use that information. Despite the widespread lack of computer literacy among university professors in Nigeria, one group of researchers found that their students were more likely to have taken courses taught by younger professors than those taught by more senior professors.

Electronic information resources provide a vast amount of information that can be easily accessed and searched. Users can find articles, books, research papers, and other types of information quickly and conveniently. Moreso, Electronic resources are valuable tools for research and study purposes. Students, researchers, and professionals can use these resources to gather information, conduct literature reviews, and stay up-to-date with the latest developments in their field. Another reason people use Electronic Information resources is the fact that electronic resources enable users to collaborate and communicate with others. They can share information, exchange ideas, and work on projects together using online platforms, email, and other communication tools. Furthermore, Electronic resources offer convenience and efficiency in accessing and managing information. Users can access resources from anywhere with an internet connection, save and organize information digitally, and easily search for specific content within resources.

Electronic resources are widely used in educational institutions to support teaching and learning. They provide educational materials, online courses, multimedia content, and interactive tools that enhance the learning experience. Professional Development is another reason for which electronic information resources are used. Electronic resources are valuable for professional development. They provide access to professional journals, conferences, webinars, and other resources that help individuals stay updated in their field and enhance their skills and knowledge.

2.3 Theoretical Frameworks

Theoretical frameworks are foundational concepts or models that serve as the basis for understanding and analyzing a particular topic or area of study within various disciplines, including science, social sciences, humanities, and more. These frameworks provide a structured and systematic approach to conceptualizing, organizing, and explaining complex phenomena. They help researchers, scholars, and practitioners make sense of the subject matter they are studying by offering a theoretical perspective, guiding research questions, and shaping the interpretation of data and findings. The theories adapted for this study are research competence framework, SCONUL information literacy skill pillars and Technology Acceptance theory.

2.3.1 Research Competence Framework

The F-Komp Model for Research Competence is a valuable tool for evaluating and enhancing research capabilities. It helps identify areas of strength and areas that need improvement, promoting high-quality research practices and advancing knowledge across diverse fields. By adhering to this model, researchers can contribute more effectively to their disciplines and society

as a whole. The "F-Komp" Model for Research Competence is a comprehensive framework designed to assess and evaluate the research skills, knowledge, and abilities of individuals involved in academic or professional research. This model serves as a tool to gauge the overall research competence of academic staff across various disciplines and research contexts. The sub-metrics of F-Komp model of research competence are content knowledge, research ethical skills, evaluation and operationalization of research and methodological skills all in the context of research competence of academic staff of public universities in Ogun State.

2.3.2 SCONUL Information Literacy Model

The study adopted information literacy model propounded by Society of College, National and University Libraries SCONUL. This model placed emphasis on people's experience of using information, that is, how individuals are able to locate, analyze, evaluate and use information effectively. The seven areas or pillars of information literacy as defined by SCONUL are identify, scope, plan, gather, evaluate, manage and present. The model describes a set of generic skills and understandings. The first of the seven component of information literacy according to the model is the ability of academic staff in public libraries, Lagos state to Identify information need. An information literate academic staff is able to identify a personal, academical needs for information, understand that information is constantly being produced, there is always more to learn and that ideas/opportunities are created by investigating/seeking information.

Scope of information as the second sub-measures iterates that information literate academic staff can assess current knowledge and identify gaps. He/she must understand what types of information are available, the characteristics of the different types of information source available to them and how they may be affected by the format (digital, print), the publication process in terms of why he/she need to publish and the currency of information, issues of accessibility, what services are available to help and how to access them for his/her research works Information Planning as the third sub-measure is the ability of academic staff of public universities in Lagos to create strategies for locating information. Information literate academic staff understands the range of searching techniques available for finding information and the differences between search tools.

An information literate person understands how information is organized, electronically and in print sources, how libraries provide access to resources, how digital technologies are providing collaborative tools to create and share information. He/she knows were to get viable information. These skills involve the ability to father relevant and up-to-date information from various sources like libraries, digital libraries, scholarly databases and so on. It also involves the ability to use internet search skills to navigate digital world. Ability to evaluate information as the fifth component of information literacy skills explains that information literate academic staff should be able to review the research process, compare and evaluate information. He/she understands the information landscape of their teaching/research context, the issues of quality, accuracy, relevance, reputation and credibility relating to information sources and the importance of citation in their research context.

Information Management is also an inevitable skill of the 21st century. It is the ability of academic staff to organize information professionally and ethically. An information literate person understands their responsibility to be honest in all aspects of information handling and dissemination (for example, understanding of copyright laws, plagiarism and intellectual property issues and so on are skills that make up of credible academic life). Skills in this group consist of data privacy skills and so on. Academic staff is expected to be able to manage information from creation, use to eventual disposal without any ethical infringement. The last on the pillar is information presentation and it is all about academic staffs' ability to apply the knowledge gained in presenting the results of their research, synthesizing new and old information and data to create new knowledge, and disseminating it in a variety of ways.

Information presentation refers to the manner in which data, facts, findings, or other forms of information are displayed and communicated to an audience. It is an essential aspect of effective communication, as it can greatly influence how well the information is understood, retained, and acted upon. Information presentation can take various forms, including verbal communication, written documents, visual aids, and multimedia formats Moreover, situating the model to the study, Information literacy skills are crucial for academic staff, as they play a vital role in teaching, research, and professional development. These skills enable academic staff to access, evaluate, use, and communicate information effectively and ethically. For effectiveness, academic staff is expected to know how to locate and retrieve relevant information from a variety of sources. This includes utilizing library databases, online resources, academic journals, books, and other scholarly materials.

They should be proficient in conducting advanced searches and navigating different information systems and platforms. It's essential for academic staff to critically evaluate the quality, credibility, and relevance of information. They should be able to assess the authority of the authors, the accuracy of the content, and the objectivity of the information source. This skill ensures that they rely on trustworthy and reputable sources for their teaching and research. Moreover, in terms of organization of information, an information literate researcher should be proficient in organizing and managing the information they collect. This includes effectively categorizing and storing information for easy retrieval and future reference. They should also be familiar with citation management tools, such as EndNote or Zotero, to appropriately document their sources and avoid plagiarism.

2.3.3 Technology Acceptance Theory

TAM, or the Technology Acceptance Model, is a widely recognized and influential theoretical framework used to understand and predict how individuals accept and adopt new information technologies, particularly in the context of user acceptance of information systems and software applications. The model was originally developed by Fred Davis in 1986 and has since undergone various modifications and extensions. TAM is rooted in the field of psychology and focuses on the psychological factors that influence technology adoption. The core components of the Technology Acceptance Model are: Perceived usefulness refers to the degree to which a person believes that using a particular technology or system will enhance their job performance, productivity, or overall effectiveness. If individuals perceive a technology as useful, they are more likely to accept and use it.

Perceived ease of use is the perception of how user-friendly and easy it is to use a particular technology or system. If a technology is perceived as easy to use, individuals are more inclined to adopt it. Ease of use can include factors such as user interface design, simplicity of operation, and the availability of training or support. According to TAM, these two factors, perceived usefulness and perceived ease of use, directly influence an individual's attitude toward using a technology, which in turn affects their intention to use the technology. Additionally, actual usage behavior is influenced by the individual's intention to use. TAM has been used extensively in research and practice to explain and predict user acceptance and adoption of various technologies, including software applications, mobile apps, websites, and more.

Researchers and practitioners often use surveys and questionnaires to measure the perceived usefulness, perceived ease of use, attitudes, intentions, and actual usage of a technology among users. Extensions of TAM, such as TAM2, TAM3, and UTAUT (Unified Theory of Acceptance and Use of Technology), have built upon the original model by incorporating additional factors and variables to account for a wider range of influences on technology adoption, such as social and organizational factors. In summary, TAM theory provides a structured framework for understanding why individuals accept or reject new technologies based on their perceptions of usefulness and ease of use, with the ultimate goal of helping organizations design and implement technologies that are more likely to be accepted and effectively used by their target users.

The Technology Acceptance Model (TAM) can be effectively situated within the context of the use of electronic information resources, such as digital libraries, databases, online research tools, and websites. TAM provides a valuable framework for understanding and predicting how individuals, including researchers, students, and professionals, accept and adopt electronic information resources in their work and daily lives. In the context of use of electronic information resources, perceived usefulness refers to the extent to which individuals in this case academic staff believe that using these resources will enhance their ability to gather information, conduct research, solve problems, or achieve their information-related goals. For instance, researchers may perceive electronic databases as useful because they provide easy access to a vast amount of scholarly literature, making their work more efficient.

Perceived ease of use in the context of electronic information resources pertains to how user-friendly and accessible these resources are. Individuals are more likely to adopt electronic information resources if they find them easy to navigate, search, and use. User-friendly interfaces, robust search functionalities, and clear navigation paths contribute to a higher perception of ease of use. TAM suggests that an individual's attitude toward using a technology is influenced by both perceived usefulness and perceived ease of use. When individuals have a positive attitude toward electronic information resources because they believe these resources are valuable and easy to use, they are more likely to embrace them in their information-seeking and research processes. TAM posits that an individual's attitude toward using a technology influences their intention to use it. In the context of electronic information resources, a favorable attitude is likely to lead to a higher intention to use these resources.

Researchers who believe that using a specific database or digital library will improve their research outcomes are more inclined to intend to use it. The intention to use electronic information resources, as influenced by TAM, often leads to the actual use of these resources. Academic staff who perceive these resources as useful and easy to use are more likely to engage with them, access information, and incorporate it into their work or studies. TAM recognizes that external factors, such as social influence and organizational support, can affect an academic staff's perception of usefulness and ease of use. For instance, if an academic institution promotes the use of electronic information resources and provides training or resources, it can positively influence the adoption of these resources by its members.

2.4 Empirical Review

2.4.1 Information Literacy Skills and Research Competency of Academic Staff

A study investigated research competence of agricultural scientists in high performing and low performing institutes in India. The sample of the study comprised of randomly drawn two hundred agricultural scientists. The researchers developed 80 a research competence index to measure the research competence of the agricultural scientists. The study among other things revealed that there is ample scope of enhancing research competence among the scientists as the majority (63.5%) had low to very low level of competence. The findings further indicated the crucial need for revisiting the system of career advancement for principal scientists and senior scientists as the t-test failed to produce significant value of competence difference between the principal scientists and senior scientists.

Many studies have been carried out on research competence of various research institutions. A researcher investigated the contribution and impact research output on PEC University of technology as reflected in its publications covered in Scopus international multidisciplinary database and described broad characteristics of research publications of PEC during 1990-2009. She concludes that in all 177 research papers that were published during the period by the departments of the PEC, showing an average of growth rate of 131.85%. Some researchers analysed the research output of academics in the science and engineering faculties of Federal Government owned universities in Nigeria. It was found out that 30.6% of the academics published between 0-4 journals articles, that only2-7% of them published 30 or more articles during the period and as 42.1% did not have any article in overseas journals.

Similarly, a scholar investigated research competence of Indian scientists contributing to world soybean research for the period 1989- 2009 based on the data available in the International Crop CD database. They conclude that Indian scientists contributing to world soybean research, have higher publication output as Indian was rated 2nd in rank, just after United States of America that has 13.64% of the world publication on soybean. A scholar reported that while research competence in terms of articles in the rest of the world is increasing fast, the relative position of Africans countries as knowledge is decreasing gradually. Sub Saharan Africans contribute around 0.7% of world scientific output and this figure has decreased over the last 15-20 years. The scholar affirmed that except for South Africa lack of incentives to publish was also a problem. He lamented that most of the research conducted in African countries to gather dust in rooms in many universities and research institutions while many researchers are forced to seek publication in foreign journals.

In a study on the relationship between Information Literacy Skills and Research Competence of Researchers in Nigeria, and the Mediating Role of Socio-Economic Factors. The finding of the study revealed that there is significant, high, positive relationship between Information Literacy Skills and research competence of the academic staff of Nigerian research institutes. To corroborates that above study, a study investigated information literacy skills, availability of information resources as factors influencing research competence of academic staff of Lead City University, Nigeria. The result of the study revealed that there is a significant relationship between information literacy skills and research competence among Lead City University scholars, in Nigeria.

2.4.2 Use Electronic Information Resources and Research Competence by Academic Staff

The use of Electronic Information Resources has significantly impacted research competence in recent years. Online platforms and databases provide researchers with easy access to a vast amount of information, enabling them to gather data, explore existing literature, and collaborate with colleagues more efficiently. A study on awareness, knowledge and utilisation of electronic databases as predictors of research competence of academic staff in private universities in southwestern Nigeria. Summarily, although awareness and knowledge of databases were high, their utilisation and academic competence were low: awareness was high, as against the threshold of 2.50, knowledge was high as against the threshold of 2.50, while utilisation of electronic databases was low as against the threshold of 4.00, and consequently, academic staff research competence was low as against the norm test of 3.00.

Utilisation knowledge and awareness of databases had positive significant correlations with research competence. Jointly, awareness, knowledge and utilisation of electronic databases significantly predicted research competence accounting for 37.0% of its variance. Awareness, knowledge and utilisation of electronic databases had relative significant contributions to research competence of academic staff. Awareness, knowledge and utilisation of electronic databases determined the research competence of academic staff in private universities in the southwestern Nigeria. Research on the knowledge, availability, and use of electronic databases by faculty at Babcock University's Business School revealed a wide range of familiarity with these tools among the faculty.

The most popular academic database was JSTOR, used by 56.5% of respondents, followed by Theses and Dissertations (54.1%) and Ebscohost (50.6%). According to the data, only 25.9% of respondents were familiar with Bookboon, while 32.9% were unfamiliar with the World Bank Open Knowledge Repository, and 29.4% were unfamiliar with the National Virtual Library. Nine of the thirteen databases analyzed were generally known to responders, according to the results. According to the report, hardly anyone used the electronic databases SAGE (27.1%), World Bank Open Knowledge Repository (36.8%), International Research Journal (29.4%), or National Virtual Library (29.4%).

Another researcher polled professors at the University of Jos to gauge their familiarity with institutional repositories (IR) and their willingness to submit research. Of those polled, 79% said they were unaware of open access IR, and 21% said they had learned about IR at their institution through a library seminar. When researchers presented the benefits of IR to participants, 91.6

percent felt that it was highly effective, while 8.3 percent were still on the fence. Academics from Nigeria's University of Ibadan and University of Lagos were surveyed to see how familiar they were with open access initiatives and how likely they were to adopt them. The two schools were picked at random to represent the larger population. Two hundred and fifty copies of the questionnaire were sent out to a random sample of 2,224 faculty and employees in the research locations. The majority of responders (58.3%) were scientists, while the second largest group (40%) was humanists. The remaining 1.7% did not specify their study discipline. This study's most important finding is that academics' knowledge of open access initiatives about open access e-resources does not match their actual use of information resources from such open access outlets, both as users and readers of scholarly publications.

Findings show that while more than half of academics are familiar with open access, fewer than half actually use various OA channels to obtain and disseminate scholarly literature. The respondents' preference for open access journals over alternative open access channels was another important conclusion of this study. This is seen as evidence of open access journals' growing legitimacy in the developing world as a formal medium for the distribution of scholarly knowledge. A research Investigated the Faculty of Medical Sciences' (FMS) knowledge and use of electronic resources provided by the Medical Sciences Library (MSL) at the University of the West Indies and the need for training in the use of these resources. The researcher found that academic staff were quite knowledgeable about the electronic resources available at MSL in general, averaging 80%.

However, they were not as well informed about MSL specific resources. In addition, reasons for using electronic resources were for communication (86%), professional (79%), personal research (77%), supporting teaching activities (74%) and administrative purposes (41%), and the reason given the least often was recreation (38%). Furthermore, the researcher found that resources available on the Internet were used more by respondents: Internet/Web (79%), email (67%), search engines (59%), online databases (67%), PubMed (65%) and online journals (45%). Overall, the study showed that the electronic resources were used to support academic staff's research (83%), teaching (65%) and clinical practice (37%).

Moreso, in a study whose purpose was to find out how the level of awareness and satisfaction, the challenges and extent of use of open access resources impact research competence of faculty in Dartum University. A quantitative survey research method was adopted. A sample size of 62 full-time lecturers and 134 part-time lecturers was selected for the study using a stratified simple random sampling technique. The findings revealed that research competence is low despite the high level of awareness and satisfaction with open access use. Again, the findings showed that faculty members use open access to a considerable extent and point out some challenges associated with open access use. It was concluded that there is a very weak but significant influence of open access use on research competence in Dartum University.

2.5 Summary of Literature Review

The availability and access to electronic information resources play a crucial role in supporting research and enhancing information literacy skills among scholars. In the context of Nigerian scholars, there have been conflicting assessments regarding their level of information literacy

skills. Some studies have found that many Nigerian university lecturers lack the necessary ICT literacy skills, which hinders their ability to identify and retrieve relevant sources of information using ICT tools. This suggests that they may struggle to effectively utilize electronic resources in their research and academic work. However, it has also been observed that the availability of relevant information resources has a significant relationship with research competence among scholars. When scholars have access to a wide range of electronic resources such as e-Databases, e-Journals, e-Books, and web search tools, it can greatly enhance their ability to conduct comprehensive and high- quality research.

Possessing web-based information literacy skills, which include the ability to navigate online resources, critically evaluate information, and effectively use search tools, has been shown to improve research competence among academic staff in federal universities in Nigeria. By developing these skills, scholars can efficiently locate and utilize relevant electronic resources, leading to more informed and impactful research outcomes. It is important for institutions to recognize the importance of information literacy skills and provide adequate support and training to their academic staff. According to the findings of the review of the relevant literature, awareness and knowledge have a significant role in determining the degree to which lecturers utilize electronic databases for research competence. It is essential to take into account that the vast majority of the research examined was carried out in underdeveloped nations, and narrows the focus to the contexts of universities in Nigeria.

Although there were a few studies, particularly in Nigeria, that contradicted this postulation, the majority of the papers that were looked at showed that electronic databases had a discernible beneficial impact on the amount of research that is produced. It has also been demonstrated in the scholarly literature that the evaluation of each member of the academic staff working in universities is typically based on the quality and quantity of the individual's research competence in the form of books, journal articles, technical reports, and so on, for the purpose of promotion. There have only been a handful of empirical studies conducted on the topic of how academic staff in private universities in Nigeria are making use of electronic databases to increase research output. The vast majority of the limited empirical research were carried out before the broad availability of electronic information resources, the growth of academic electronic publications, and Internet access in universities in Nigeria.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the methodology used in this study. It includes research design, population, sampling techniques, research instrument, validity and reliability of research instrument, methods of data collection and method of data analysis.

3.2 Research Design

The research design used in this study is the descriptive research of the survey type. Descriptive research focuses on the collection of data and information about the research problem to enable the researcher to test hypotheses or answer questions about the current status of the subject of the study. Clearly the purpose of the descriptive research is to describe, as well as explain or validate the objectives regarding a certain group of people. In this case the research design will enable the researcher to properly measure the status of the study variables such as research competence, use of electronic information resources and information literacy skills. It will also help to delineate the influence of the study independent variables on the dependent variable.

3.3 Population of the Study

The study population comprised of all academic staff in the four public universities in Ogun State. The population of this study is approximately 3,556 lecturers from the four federal and state government owned universities in Ogun State namely. The population of breakdown is presented in Table 3.1 below:

3.1: Study Population Academic Staff of Universities

S/N	University	Librarian
1.	Federal University of Agriculture, Abeokuta	1,132
2.	Olabisi Onabanjo University of Education, Ago Iwoye	1,011
3.	Tai Solarin University of Education, Ijebu Ode	804
4.	Moshood Abiola University of Science and Technology, Abeokuta	609
	Total	**3,556**

3.4 Sample size and Sampling Technique

The study adopted proportional sampling technique and employed the use of Krege and Morgan sampling technique which is often regarded as Krejcie and Morgan table 1. Therefore, from the table 3.1, the sample size for this study is 346 as the total population of the study 3,556 falls within the range of 3500 on the table. The sampled size is calculated proportionally to the number of academic staff in each of the universities using the formular, n = N/T x S where 'n' is the proportional sample size, 'N' is number of Librarians, 'T' is the total population of the study and 'S' is the sampled size.

3.5 Research Instrument(s)

The instrument for this study was a standardized questionnaire adapted from previous studies. Structured questionnaire adapted from a related studies was used to gather data from the respondents. The study adopted the four points Likert scale design which would allow the researchers in listing options from which respondents can choose. The instrument is made up of four sections: A to D. Section A consists of questions on demographic information of respondents

which is self- developed. The bio-data of the respondents is measured by six variables such as: Name of institution, Field of study, Staff cadre, Work experience, and Gender. Section B - D contains items of the research questions of this study. All the questions were measured on a four-point Likert scale of Strongly Agree, Agree, Strongly Disagree, and Disagree.

3.6 Validity and Reliability of the Instrument(s)

For content validity, the questionnaire for this study was adapted from an established scale and a previous related study. For face validity, the instrument was submitted to the research supervisor to scrutinize, corrections and suggestion made was incorporated into the instrument before administering it. Reliability is concerned with the consistency between independent measurements of the same phenomenon. The reliability of the instrument was tested through a pilot study using thirty academic staff in University of Ilorin, Kwara State which is not part of the geographical location where the study was carried out.

3.7 Method of Data Collection

The designed questionnaire was distributed to the academic staff in the public universities in Ogun State with the aid of three research assistants, who helped in distributing the questionnaires to the respondents and ensure they respond to the questionnaire correctly within a period of two weeks.

3.8 Method of Data Analysis

The data collected from the survey was coded and analyzed using the IBM SPSS statistics software. The demographic data was analyzed using descriptive statistics such as simple frequency tables and percentages.

3.9 Ethical Considerations

Ethical consideration was made to avoid encroaching on the respondent's privacy and freedom by giving them time to fill in the questionnaire, maintain confidentiality of information which was ensured by not requesting of their identity. All works are cited are acknowledged in references using APA style 6th edition to avoid plagiarism. Logistically, the researcher has obtained clearance for this study from the institutions under study. Ethics in research is premised on the fact that researchers are genuinely concerned with impacting positively on other peoples' lives and are not motivated by personal gain, in addition to the fact that there are laws which prohibit certain research practices (Mugenda and Mugenda, 2003). Ethics is therefore, meant to protect the rights and welfare of participants and researchers. This study endeavored to apply all the relevant ethical principles at all levels of the study (research design, sampling, data collection and analysis).

CHAPTER FOUR

RESULTS AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter dealt with data presentation, analysis and the interpretation of the results. The analysis is guided by the specific objectives in this study. The first section shows the presentation of the descriptive analysis using tables showing percentages and interpretations below the tables. Section two presents inferential statistics and discussion of findings comes at the later end of the chapter. The results presented were based on the research questions, which the study set out to answer and understudy.

4.2 Response Rate

Table 4.1: Response Rate

Administered Questionnaire	Retrieved Questionnaire	Valid Questionnaire	Usable Percentage
346	276	268	77%

A total of three hundred and forty-six (346) copies of questionnaire were administered, and two hundred and sixty- eight (276) copies responses was received and 268 was duly filled and valid. The usable questionnaire represented 77% response rate.

4.3 Demographic Analysis of Respondents

Table 4.2: Demographic Details of the Respondents

Gender	**Frequency**	**Percentage**
Male	153	43.0
Female	115	57.0
Total	**268**	**100.0**
Age	**Frequency**	**Percentage**
29 years and below	78	29.0
30 – 35	75	28.0
36 – 40	107	40.2
41 and above	8	2.8
Total	**268**	**100.0**
Year of Experience	**Frequency**	**Percentage**
Less than 5 years	84	31.0
5 Years	74	28.0
Greater than 5 years	110	41.0
Total	**268**	**100.0**
Staff Cadre	**Frequency**	**Percentage**
Graduate Assistant	81	31.0
Lecturer II	47	18.0
Lecturer I	58	22.0
Associate Professor	36	13.0
Professor	53	16.0
Total	**268**	**100.0**

Source: Researcher, 2025

Table 4.2 above provides a demographic analysis of a group of 268 respondents' categorized by gender, age, years of experience, and level or position. The group is almost evenly split between males (43.0%) and females (57.0%). The majority of respondents in the group fall into the age category of "36–40 years" (40.2%). The next largest age group is "30–35 years" (28.0%). Only a small percentage of individuals are above 40 years (2.8%). For the years of experience, significant portion of individuals have "greater than 5 years" of experience (41.0%). The next largest group has "less than 5 years" of experience (31.0%). Those with "approximately 5 years" of experience make up 28.0% of the group. For the level or academic cadre of the respondents, majority of the

respondents' position in the group is "Graduate Assistant" (31.0%). "Lecturer I" (22.0%) and "Lecturer II" (18.0%) positions are also well-represented. "Associate Professor" (13.0%) and "Professor" (16.0%) positions make up a smaller percentage of the respondents.

4.4 Analysis of Research Questions

4.4.1: What is the level of research competence of academic staff in public universities in Ogun State?

Table 4.3: The level of research competence of academic staff in public universities.

Options	SA	A	SD	D
I can define the research question in my current field of study.	130(48.6%)	130 (48.6%)	6(1.9%)	2(0.9%)
I understand the relationship between objectives of the study and research questions.	128(47.7%)	130 (48.6%)	10(3.7%)	0(0.0%)
I can formulate hypothesis, both null and alternate.	138(51.4%)	120(44.9%)	10(3.7%)	0(0.0%)
I know how to harness my objectives of the study with the research findings.	133(49.5%)	122(45.8%)	13(4.7%)	0(0.0%)
I know what type of research design would be most suitable for my research.	78(29.0%)	125(46.7%)	58(21.5%)	7(2.8%)
I can explain the rationale for selecting research for my study.	47(17.8%)	123(45.8%)	73(27.1%	25(9.3%)
I can choose and justify the sampling technique for my research.	47(17.8%)	78(29.0%)	110(41.1%)	33(12.1%)
I can describe the data collection methods I would use for my research.	85(31.8%)	95(35.5%)	80(29.9%)	8(2.8%)

Source: Researcher, 2025

Table 4.3 above shows the research competence level of the respondents. To start with the Content Knowledge Skills, like "I can define the research question in my current field of study", 48.6% of respondents rated their proficiency as "Strongly Agree" 48.6% rated it as "Agree" 1.9% rated it as

"Strongly Disagree" while 0.9% rated it as "Disagree" This is indicating that, on average, respondents have a high level of confidence in their ability to define research questions. More so, "I understand the relationship between objectives of the study and research questions", 47.7% of respondents rated their proficiency as "Strongly Agree" 48.6% rated it as "Agree" 3.7% rated it as "Disagree" This is indicating a high level of understanding of the relationship between study objectives and research questions.

Furthermore, "I can formulate hypotheses, both null and alternate", 51.4% of respondents rated their proficiency as "Strongly Agree" 44.9% rated it as "Agree" 3.7% rated it as "Disagree" This is suggesting a high level of proficiency in formulating hypotheses. Moreover, for skill like "I know how to harness my objectives of the study with the research findings", 49.5% of respondents rated their proficiency as "Strongly Agree" 45.8% rated it as "Agree" 4.7% rated it as "Disagree" This is indicating a high level of skill in connecting study objectives with research findings. Also, for question like "I know what type of research design would be most suitable for my research", 29.0% of respondents rated their proficiency as "Strongly Agree" 46.7% rated it as "Agree" 21.5% rated it as "Strongly Disagree" 2.8% rated it as "Disagree" This is indicating a moderate level of knowledge regarding research design selection.

More so, for questions like "I can explain the rationale for selecting the research design mentioned in the previous question above", 17.8% of respondents rated their proficiency as "Strongly Agree" 45.8% rated it as "Agree" 27.1% rated it as "Strongly Disagree" 9.3% rated it as "Disagree" This is suggesting room for improvement in explaining the rationale for research design. "I can choose and justify the sampling technique for your research study", 17.8% of respondents rated their

proficiency as “Strongly Agree” 29.0% rated it as “Agree” 41.1% rated it as “Strongly Disagree” 12.1% rated it as “Disagree” This is indicating a high level of proficiency in selecting and justifying sampling techniques. “I can describe the data collection methods I would use for my research”, 31.8% of respondents rated their proficiency as “Strongly Agree” 35.5% rated it as “Agree” 29.9% rated it as “Strongly Disagree” 2.8% rated it as “Disagree” This is suggesting a moderate level of proficiency in describing data collection methods.

4.4.2 What is the level of information literacy skills of the academic staff of the public universities in Ogun State?

Table 4.4: The level of information literacy skills of the academic staff of the public universities.

Options	SA	A	SD	D
I can Identify a lack of knowledge in a subject area.	90(33.6%)	153(57.0%)	2.5(9.3%)	0(0.0%)
I can define research question using simple terminology.	115(43.0%)	130(48.6%)	23(8.4%)	0(0.0%)
I can articulate current knowledge on a topic.	190(71.0%)	75(28.0%)	3(0.9%)	0(0.0%)
I can recognize a need for information and data.	140(52.3%)	125(46.7%)	3(0.9%)	0(0.0%)
I know how to identify any information gaps.	165(61.7%)	100(37.4%)	0(0.0%)	3(0.9%)
I can identify which types of information will best meet the need.	155(57.9%)	108(40.2%)	5(1.9%)	0(0.0%)
I can identify the available search tools, such as general and subject specific resources at different levels.	118(43.9%)	145(54.2%)	5(1.9%)	0(0.0%)
I can identify different formats in which information may be provided.	118(43.9%)	140(52.3%)	10(3.7%)	0(0.0%)

Source: Researcher, 2025

The table 4.4 above provides a detailed analysis of respondent's abilities related to information literacy skills. The responses gotten from the table 4.4 showed that the respondents excel in identifying a lack of knowledge in a subject area, with a Strongly Agree (57.0%) and a Agree (33.6%). More so, they can articulate current knowledge on a topic with a Strongly Agree (71.0%) and a Agree (0.9%). They recognize a need for information and data to achieve a specific end and can define limits to the information need to a Agree (52.3%) and a Strongly Agree (46.7%). This shows a high-level competence in the ability to identify personal need for information.

On the respondents' ability to scope information, the table revealed that the respondents can assess current knowledge and identify gaps with a Strongly Agree (61.7%) and a Agree (37.4%). They know what information gaps exist with a Strongly Agree (61.7%) and a Agree (37.4%). More so, they can identify which types of information will best meet the need with a Strongly Agree (57.9%) and a Agree (40.2%). This shows a high-level literacy skills in the respondents' ability to assess current knowledge and identify gaps.

4.4.3 What is the use of electronic information resources by academic staff of public universities in Ogun State?

Table 4.5: The use of electronic information resources by academic staff of public universities.

Options	SA	A	SD	D
Full-text Databases.	78(34.1%)	90(39.6%)	43(18.7%)	18(7.7%)
Online Databases.	55(24.2%)	135(59.3%)	38(16.0%)	0(0.0%)
Institutional Websites.	53(23.1%)	88(38.5%)	20(8.8%)	68(29.7%)
Institutional Repositories.	95(41.8%)	80(35.2%)	0(0.0%)	53(23.1%)
Search Engines.	73(31.9%)	95(41.8%)	60(26.4%)	0(0.0%)
Scholarly Databases.	135(59.3%)	55(24.2%)	38(16.0%)	0(0.0%)

Open-Access Databases.	80(35.2%)	95(41.8%)	53(23.1%)	0(0.0%)
OPAC	95(41.8%)	60(26.4%)	73(31.9%)	0(0.0%)

Source: Researcher, 2025

Table 4.5 above showed the use of electronic information resources. For Full-text databases, approximately 34.1% of respondents use full-text databases very frequently, indicating that they rely on these resources extensively for their information needs, 39.6% use them frequently, 18.7% use them once in a while and a smaller 7.7% do not use full-text databases at all. This is indicating that electronic information resources used relatively often. For, Online Databases, about 24.2% use online databases very frequently. A majority of 59.3% use them frequently.16.0% use them once in a while. This is reflecting significant usage of these resources. For Institutional Websites. Only 23.1% use institutional websites very frequently. 38.5% use them frequently. 8.8% use them once in a while. A significant 29.7% do not use institutional websites at all. This is indicating a lower level of use compared to the previous resources.

For Institutional Repositories, A substantial 41.8% use institutional repositories very frequently. 35.2% use them frequently. 23.1% use them once in a while. This is indicating a moderate level of usage. For Search Engines, approximately 31.9% use search engines very frequently. A significant 41.8% use them frequently. 26.4% use them once in a while. This implies the moderately used given the percentages. For Scholarly Databases, 59.3% strongly agree that they use it research and academic purposes, 24.2% agree and 16.0% strongly disagree. This is indicating high use of the resources. For Open-Access Databases, A significant 35.2% strongly agree that they use it. A substantial 41.8% agree and 23.1% strongly disagree. This is showing strong

agreement with the use of the resources. For OPAC, 41.8% strongly agree that they use it, 26.4% agree and 31.9% strongly disagree. This is indicating a strong emphasis on its usage.

4.5 Discussion of Findings

The aim of this study is to determine the influence of information literacy skills and use of electronic information resources on research competence of academic staff in public universities in Ogun State, Nigeria. To achieve this aim, the researcher came up with three research questions. The first research question is based on the level of competence of academic staff in terms of research found a moderate level of research competence among academic staff in public universities in Ogun State, Nigeria. Several authors have carried researches related to the research competence and several findings has been reported. For instance, a study on the students' perceptions toward academic competencies, the case of German first-year students found that First-year students in Germany perceive academic staff as supportive but have low self-confidence in research skills, suggesting universities should help them develop these skills through personalized programs and emerging technologies.

The obviously negated the findings of this study. A study in Swaziland on Self-reported Levels of Competence and Training Needs in Statistical Procedures by University Academic Staff in Botswana and Swaziland found that University academic staff in Botswana and Swaziland are competent in basic statistical procedures but need training in intermediate and advanced procedures, with publication history playing a significant role. This means that some studies use the number of publications to measure the research competence of academic staff.

The second research question which deals with the information literacy skills of academic staff found a high-level information literacy skill. In corroboration of this study, a study titled Information Literacy Skills of Academic Staff in Nigerian Federal Universities found that Academic staff in Nigerian federal universities have high information literacy skills, which positively impact research productivity. Another study that supports these findings titled relationship between Information Literacy Skills and Research Output of Academic Staff in Nnamdi Azikiwe University Awka, Nigeria found that Nnamdi Azikiwe University, Awka academic staff have moderate information literacy skills, which positively correlate with their research output and rank. The implication of this finding is that information literacy skill will definitely affect and positively influence research competence of academic staff.

The third research question which seeks to know the level of use of electronic information resources among academic staff of public universities in Ogun State, Nigeria. The study found that both institutional websites and institutional repositories respectively indicate a lower level of use. A study A study conducted in Nigeria found that effective ICT skills significantly influence the use of EIRs by lecturers in tertiary institutions. The study recommended that tertiary school management should provide funding for the acquisition of EIRs and training for lecturers to enhance their research competence. Use of EIR is pivotal for research competence because of electronic information resources have vastly expanded access to information, making it easier for individuals and organizations to obtain data, research, and knowledge from a wide range of sources. EIR is important because of reasons like: Search engines and databases have made it much easier to locate and retrieve relevant information quickly, improving research efficiency and productivity.

Electronic resources enable individuals and teams to collaborate on projects and share information, regardless of their physical location, fostering global collaboration and knowledge sharing. Electronic resources provide real-time access to current information, which is crucial for industries where up-to-date data is essential, such as news, finance, and healthcare. Electronic resources have the potential to reduce the costs associated with storing and distributing physical materials, like books and printed journals, leading to cost savings for libraries, educational institutions, and businesses. The digital nature of electronic information resources reduces the need for paper and printing, contributing to environmental conservation and sustainability efforts. Many electronic resources allow users to customize and personalize their information consumption, tailoring content to their specific needs and interests.

Electronic resources generate vast amounts of data, which can be analyzed to gain insights into user behavior, preferences, and trends, helping organizations make data-driven decisions. Electronic resources can be made accessible to a broader range of people, including those with disabilities, through features like screen readers and text-to-speech technology. More so, while electronic information resources provide access to a wealth of information, they also present challenges related to information overload, where users may struggle to filter and manage the vast amount of available data. The use of electronic information resources has raised important issues related to copyright and intellectual property rights, as it is easier to duplicate and distribute digital content. The digital nature of electronic information resources has brought forth concerns related to privacy and data security, as the collection and sharing of personal information are prevalent in the digital ecosystem.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the fundamental issues as established in the entire study and also makes relevant conclusions and recommendations based on policy, best practice framework and further research. These are derived from the purpose, objectives and research questions of the study. The purpose of the study was to determine the influence of information literacy skills and use of electronic information resources on research competence of academic staff in public universities in Ogun State, Nigeria and suggest areas where improvement of services ca be made.

5.2 Summary of Findings

These findings collectively highlight the crucial role of electronic information resources, information literacy skills, and research competence in education, the workforce, and society. They underscore the importance of developing and nurturing these competencies to harness the full potential of the digital age and advance knowledge in various in academic world and in the area of research. The findings of the study are having follows:

i. The study found a moderate level of research competence among academic staff in public universities in Ogun State, Nigeria.
ii. The study found a high-level information literacy skills among academic staff of public universities in Ogun State, Nigeria.

iii. The study found a low-level use of institutional websites and a moderate level use of institutional repositories.

5.3 Conclusion

The study revealed that there is a moderate level of research competence among academic staff in public universities in Ogun State. This suggests that while academic staff possess some research skills, there is room for improvement and further development in this area. The study found that academic staff exhibit a high-level of information literacy skills. This is a positive outcome, as information literacy is crucial for conducting effective research and staying up-to-date with the latest developments in their respective fields. The study found that academic staff have a low level of engagement with institutional websites and a moderate level of use of institutional repositories. This indicates that there is potential for universities to enhance the utilization of these resources for research purposes.

This study underscores the importance of information literacy skills and the utilization of Electronic Information Resources for enhancing research competence among academic staff in public universities in Ogun State, Nigeria. It highlights the need for educational institutions to invest in training and resources to further improve research competencies and promote the effective use of information sources and technologies. Additionally, these findings can serve as a basis for developing targeted interventions to empower academic staff with the necessary skills and resources to excel in their research endeavors, ultimately contributing to the advancement of knowledge and academic excellence in the region.

5.4 Recommendations

Based on the findings of the study regarding the research competence, information literacy skills, and the use of Electronic Information Resources (EIR) among academic staff in public universities in Ogun State, Nigeria, several recommendations can be made:

i. Provide training and workshops for academic staff to improve their research skills and competencies. This can include research methods, data analysis, and academic writing.

ii. Encourage the continued development and application of information literacy skills among academic staff. This can be achieved through ongoing training, workshops, and resources that promote critical thinking and information retrieval.

iii. Increase awareness and utilization of institutional websites and repositories as valuable resources for academic staff. Universities should make efforts to enhance these platforms and ensure that they are user-friendly and up-to-date.

iv. Encourage academic staff to incorporate Electronic Information Resources (EIR) into their research and academic activities. Provide access to relevant databases, e-journals, and other EIR, and offer training on how to effectively use these resources.

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APPENDIX

QUESTIONNAIRE ON:

INFORMATION LITERACY SKILLS, USE OF ELECTRONIC INFORMATION RESOURCES AND RESEARCH COMPETENCY OF ACADEMIC STAFF IN PUBLIC UNIVERSITIES IN OGUN STATE, NIGERIA

Dear Respondent,

I am an undergraduate student of the Department of Library and Information Science, Institute of Information and Communication Technology, Kwara State Polytechnic, Ilorin, Kwara State, Nigeria. I seek your indulgence to help attend to this questionnaire to the best of your ability. It's aimed at gathering relevant data on the topic: *Information Literacy Skills, Use of Electronic Information Resources and Research Competency of Academic Staff in Public Universities in Ogun State, Nigeria.* Your response is strictly confidential and will be used only for research purposes. Thanks.

ADEBAYO, Sunday Lawrence
07065427001

SECTION A: Demographic Information

1. Name of Institution: ……..
2. Gender: Male ( ) Female ( )
3. Age Group: Below 29 years ( ); 30–35 years ( ); 36–40 years ( ); Above 40 years ( )
4. Year of Experience: Below 5 years ( ) 5 years ( ); Above 5 years ( )
5. Job Level: Graduate Assistant ( ); Lecturer I ( ); Lecturer II ( ); Senior Lecturer ( ); Associate Professor ( ); Professor ( )

SECTION B: What is the level of research competence of academic staff in public universities in Ogun State?

Keys: SA=Strongly Agree, A=Agree, D=Disagree, SD=Strongly Disagree

Options	SA	A	SD	D
I can define the research question in my current field of study.				
I understand the relationship between objectives of the study and research questions.				
I can formulate hypothesis, both null and alternate.				
I know how to harness my objectives of the study with the research findings.				
I know what type of research design would be most suitable for my research.				
I can explain the rationale for selecting research for my study.				
I can choose and justify the sampling technique for my research.				
I can describe the data collection methods I would use for my research.				

SECTION C: What is the level of information literacy skills of the academic staff of the public universities in Ogun State?

Keys: SA=Strongly Agree, A=Agree, D=Disagree, SD=Strongly Disagree

Options	SA	A	SD	D
I can Identify a lack of knowledge in a subject area.				
I can define research question using simple terminology.				
I can articulate current knowledge on a topic.				
I can recognize a need for information and data.				
I know how to identify any information gaps.				
I can identify which types of information will best meet the need.				
I can identify the available search tools, such as general and subject specific resources at different levels.				
I can identify different formats in which information may be provided.				

SECTION D: What is the use of electronic information resources by academic staff of public universities in Ogun State?

Keys: SA=Strongly Agree, A=Agree, D=Disagree, SD=Strongly Disagree

Options	SA	A	SD	D
Full-text Databases.				
Online Databases.				
Institutional Websites.				
Institutional Repositories.				
Search Engines.				
Scholarly Databases.				
Open-Access Databases.				
OPAC				