October 2022

The Role of Academic Libraries in Restoring Quality Teaching and Learning in Education for Sustainable Development in Nigeria

muhammad Kabir Abubakar
muhammad.kabir@umyu.edu.ng

The Role of Academic Libraries in Restoring Quality Teaching and Learning in Education for Sustainable Development in Nigeria

Muhammad Kabir ABUBAKAR
Umaru Musa Yar'adua University, Katsina, Nigeria:
Phone: +2348032979954, muhammad.kabir@umyu.edu.ng

Abstract

The quality of teaching and learning is the key to sustainable development. This has inspired innumerable educational stakeholders to search for means of restoring quality teaching and learning in Nigeria's education system. To accomplish this, significant epistemological efforts have been made over the years on teaching methods/models, student learning styles, and curriculum content reforms. However, the role of academic libraries has not been given any significant consideration. It is, therefore, the conviction of this paper that sustainable development depends profoundly on the availability of information provided and accessed through a well-managed library for effective teaching, learning, and research. So, using desktop literature review and the author's experience, this paper examines the roles of academic libraries in restoring quality teaching and learning for sustainable development in Nigerian institutions of higher learning. The study recommends and concludes that there may be scope for the augmentation of social media and ICT information literacy in academic library service delivery, which may address a plethora of challenges faced by the government in restoring quality teaching and learning for sustainable development.

Keywords: *Academic Libraries; Teaching Learning; Sustainable Development; Nigeria*

1. Introduction

Libraries have played an incredible role in fostering education and human development over the years. Libraries, for example, play a number of roles in the educational ecosystem, including promoting reading and lifelong learning, providing access to relevant and up-to-date research information, developing information literacy skills, and providing training and support for students' learning needs through a variety of mechanisms. Libraries are often seen as learning institutions that encourage individual accomplishment (Mason, 2010). From the perspective of human development, libraries are crucial in the provision of information and knowledge, which serves as the foundation for innovation and progress in organizations, society, and individuals (Nworie, Obiyan, Nworie, & Irunebo, 2018). Ndung'u & Otike (2018) go on to say that libraries help individuals' battle poverty, deprivation, and illiteracy by providing information. Furthermore, academic libraries are often acknowledged as vital contributors to a country's human resource development (Okiy, 2010).

Libraries are not only a key factor in restoring quality teaching and learning for sustainable development, but they are also a necessity for the course due to the aforementioned contributions. Despite the critical

role that libraries play in ensuring effective teaching and learning activities in many Nigerian schools and institutions of higher learning, libraries have remained underappreciated reading centers, and their contributions are undervalued. This is due in part to a misunderstanding of libraries as key players in improving education for long term growth. Understanding the responsibilities of libraries in restoring high-quality teaching and learning for sustainable development could be beneficial.

Many academics have emphasized the importance of libraries in the educational field. According to Uziogwe (2018), no meaningful or genuine education can take place without the library. In addition, Kamau, Kiplang'at, and Odini (2016) state that libraries are important in encouraging students to think critically and conduct independent research. As a result, institutions of higher learning all around the world are currently investing significant resources on it. The institutions invest in learning resources (e-resources and print instructional materials) to aid them in achieving their goals by ensuring that users take advantage of them for teaching, learning, and research.

Therefore, academic, public, school, special, and other types of libraries can play a significant role in restoring quality teaching and learning in education for sustainable development. Academic libraries, for example, in the context of higher education, which is the topic of this paper, provide information to professors, students, and other members of the university community in order to help them. In Nigeria, academic libraries primarily provide information and services to its patrons using a traditional strategy and, to a lesser extent, a digital approach. The digital approach makes use of new technology capabilities to make library resources and services more accessible.

In recent years, there has been a tremendous shift toward offering information resources and services electronically. Most modern academic libraries, according to Ramkumar and Vinayagamoorthy (2020), are now digitalized and use technology to promote scientific studies and research activities at the institutions with which they are linked. Okiy (2010) emphasizes the need of adopting new technology in academic libraries, stating that teaching and research at tertiary institutions today require the use of high-quality ICT. Okiy goes on to say that academic library's reluctance to adopt new technology could lead to obsolescence and irrelevance. Online OPACs, Databases, and Multimedia, Online Journals, Digital Repositories, Electronic Books, Social Networks, Electronic Archives, and Online/Electronic services are some of the technologies utilized by academic libraries to assist teaching, learning, and research.

However, as in most poor nations, the utilization of these modern technology tools to deliver quality services and access to important information resources has been limited in many academic libraries in Nigeria. This is partly due to lack of computer skills and competency, declining budgets, insufficient ICT infrastructure, low information literacy, slow acceptance of open access resources, and changes in higher

education, to name a few (Bello & Ezeri, 2020; Ashiq, Rehman, & Mujtaba, 2020; Kamau, Kiplang'at & Odini, 2016; Jain & Akakandelwa, 2016; Jain, 2013).

As a result, introducing novel technologies made available by ICT into libraries in Nigeria, particularly academic libraries, will assist enhance access to information resources while also increasing the quality of teaching and learning in our institutions? Academic libraries will have few options to solve teaching and learning difficulty in education for sustainable development if these technologies are not used. Therefore, the focus of this study is on the roles of academic libraries in supporting teaching and learning for sustainable development. The study concludes by arguing that restoring quality teaching and learning in Nigerian education requires the use of modern tools such as social media and ICT, as well as information literacy skills.

1.1. Conceptual Framework
1.1.1. Academic libraries and the restoration of high-quality teaching and learning

In the twenty first century, teaching and learning have undergone significant transformation. New teaching and learning methods have emerged recently, including "Open and Distance Learning (ODL), Learning Management Systems, M-Learning, Online Education Ventures, Virtual Campuses, and the Flipped Classroom" (Jain, 2013). These new educational trends have a substantial impact on libraries and the services they provide to meet users' information demands. According to Aras & Colaklar (2015), a library is a key institution that colleges need to have for both research and educational objective as a component of the leaning process. Aras & Colaklar further say that no institution of higher learning can maintain educational and research activities without a functional library. Academic libraries, according to Jain (2013), exist to help their academic community.

Academic libraries, according to organizational theory, are an organization within a bigger organization, whose purpose and functions are dictated by the larger organization's numerous elements (Gabby & Shoham, 2017). They are expected to be affected by the ideology of the community they serve in terms of their goals and structure. A university, a polytechnic, a research institute, or a college can be the community. Similarly, the quality of a library's service within an institution is tied to the quality of that institution's education. As a result, for any academic library to fulfil its essential purpose within the education ecosystem, it must maintain a constant dialogue with the consumers it serves. The type of services provided to users, the communication channels employed, the user's demands, and the users' perceptions of the roles and relevance of the academic library in teaching and learning processes are all important factors of interactions. Various studies on the roles of academic libraries (Gabbay & Shoham, 2017; Anunobi & Okoye, 2008) have found that academic libraries assist research, learning, and teaching.

In order to obtain exceptional academic skills, academics, scientist, technocrats, researchers, and students want simple access to important and up-to-date research information in the library. Teachers and students will have easier access to information resources through the use of technology tools such as the internet, social media, CD-ROMs, PCs, video-conferencing, mobile phones, and electronic communication. As a result of the employment of these new technology tools, the academic library will be able to give quick and distant access to information resources and services to teachers and students.

1.1.2. Education and sustainable development

This study conceptualizes sustainable development using the United Nations' 2020 Agenda for Sustainable Development (2015), with a focus on the role of academic libraries in restoring and achieving quality teaching and learning in education. The paper believes there is a strong link between sustainable development and high-quality education. Sustainable development, according to Konig & Evans (2013), aims to balance economic activities with social growth and environmental conservation. Sustainable development entails raising awareness of the global relationship between environmental concerns and social-economic challenges like poverty and hunger, as well as eliminating inequities and enhancing health and education. Without a doubt, the best way to solve these problems is for individuals to be properly educated. To solve the issues of sustainable development, this effectively demands for a better organization of teaching, learning and research. Higher education institutions are expected to provide a platform for research and learning that will transform society in this regard. That platform, without a question, is the academic library, whose primary duty is to serve the academic community's staff, students, and researchers in their three main institutional activities: teaching, learning, and research. This assumption is backed up by (Jain 2019), who claims that access to information and knowledge is essential for sustainable development.

The global SDGs 2030 agenda's fourth aim is high-quality education. The goal is to provide all citizens of the world with a high-quality education that is inclusive and egalitarian. According to Jain (2019), quality education is the foundation for improving people's lives and achieving long-term growth. However, without the provision of and access to information resources, no excellent education can be attained. This is where libraries, particularly academic libraries, play an important role. The library's primary responsibility is to preserve people's intellectual contributions and to disseminate critical information and knowledge for learning, education, and societal progress. Academic libraries are supposed to help, students, professors, and researcher at universities. Academic libraries must adopt technology applications to accomplish this efficiently. The "digital natives" (those who grew up using digital technology and have come to rely on it as an intrinsic part of their lives) who use 21st libraries require information and knowledge resources in the correct format and at the right time. Academics

libraries' contribution on the restoration of high quality teaching and learning cannot be underestimated in this regard.

2. Statement of the problem

The National University Commission (NUC), the National Board for Technical Education (NBTE), and the National Commission for Colleges of Education (NCCE) have all underlined the importance of academic libraries in supporting teaching and learning in Nigerian institutions of higher learning. However, the quality of teaching and learning in Nigerian higher institutions has deteriorated over time, and it has become increasingly complex. Because of irrelevant and outdated teaching models, multiple educational goals, insufficient expertise, poor funding, inadequate instructional materials, students' characteristics, and environmental factors, the challenges are beyond the capacity of regulating agencies, institutions, and teachers to address alone. Policymakers, organizations, and academics are currently ill-equipped to address the issue of restoring high-quality education.

To solve this issue, this paper proposes that adopting and using social media, as well as offering information and ICT literacy skills, will enables academic libraries to have greater impact on restoring quality teaching and learning in Nigerian education for sustainable development. Academic libraries, which play a critical role in supporting teaching, learning, and research, can make a substantial difference in this area. Though the pattern of seeking and accessing information resources among library users has changed significantly in recent years, the introduction of new technology tools can assist the library in providing satisfactory service its customers. Customers will be able to learn how to properly access and apply information and knowledge resources for their studies and research.

3. Objectives of the study

The purpose of this paper is to examine the role of academic libraries in restoring quality teaching and learning in Nigerian education for sustainable development. The following are the study's particular goals:

1. To determine the role of academic libraries in restoring quality teaching and learning in Nigerian education for sustainable development.
2. To identify the issues that academic libraries face in restoring excellent teaching and learning for sustainable development.
3. To provide policymakers, school administrators, and teachers with practical recommendations.

4. Theoretical Background: Diffusion of Innovation (DOI) Theory

Rogers (1995) demonstrated that diffusion of innovation (DOI) theory may explain how innovation is communicated among members of a social system over time through certain channels. Communication, according to Rogers (2003), is the process of developing and sharing messages with one another in order to attain a common understanding. It happens through channel between sources, where a channel is the

medium through which a message or piece of information is sent from source to the receiver. A source might be a person or an organization that send forth a message. Diffusion is a type of communication that consists of three communication elements: an innovation, two individuals or other units of adoption, and a communication channel. According to Rogers (2003:12) innovation is a "concept, behavior, or thing that is seen by a person or other units of adoption". Therefore, communication channels such as social media and other communication technologies appear to have changed the way we obtain information, affecting how libraries serve their patrons. The availability of mobile technologies and the prominence of social media tools lead to a paradigm change in information access and delivery. These new technology tools appear to clear consequences for academic libraries and their users, thus they could be a significant factor to address in the future.

5. Research Methodology

This study did a thorough desktop literature review to acquire information about libraries' involvement in restoring teaching and learning quality for sustainable development. Several academic databases were examined to verify that the literature evaluation was thorough and that all relevant papers were included in the study. Springer Link, Emerald Insight, Google Scholar, JSTOR, AJOL, and EbscoHost are the databases in question. "Roles of libraries in teaching and learning", "e-libraries", "social media", "information literacy", and "libraries and sustainable development" were some of the descriptors utilized in the search. The search was conducted with no time constraints in order to maximize the breadth of coverage. Current and diverse literature, on the other hand, was given a lot of thought. The literature was categorized using the following criteria:

6. Academic Libraries and the Restoring of High-Quality Education

6.1. The role of social media in academic libraries

In recent decade, the use of social media has exploded all across the world. The education system, learning patterns, information search for study and life-long learning, resource discovery, scholarly publishing, use and access to information, and information sharing, among other thing, have all been impacted by social media. As a result of this shift, instructors are now looking for ways to incorporate social media and other technologies into their classes in order to encourage active participation and engagement with course topics (Aras & Colaklar, 2015). In effect, this serves as the catalyst for a paradigm shift in academic libraries (Maniki & Jain, 2019). Therefore, academic libraries can us social media's promise of enhancing communication and sharing ideas to create stronger relationships with their users. Facebook, Twitter, YouTube, and blogs are some of the most regularly utilized social media tools that academic can use.

According to Stewart, Atilano, and Arnold (2017), social media is an interactive technology that allows for two-way communication. Two-way communication between academic libraries and their patrons can

be used to better understand users' information needs, conduct outreach, market, communicate library resources, and connect with them. In light of social media's power to communicate, Javed and Bhatti (2015) advocate that libraries use social media to express their mission and services in order to demonstrate their value to information users. While academic libraries in rich nations have increased their usage of social media in recent years, the situation in most poor countries, particularly Nigeria, has remained stagnant. Academic libraries must connect their service delivery methods to the emerging pattern of obtaining and sharing information in order to meet the research, teaching, and learning demands of instructors, researchers, and students.

Many researchers have previously concluded that social media can play a limitless role in academic libraries (Maniki & Jain, 2019; AlAwadhi & Al-Dalhani, 2019; Stewart, Atilano & Arnold, 2017; Javed & Bhatt, 2015; Aras & Colaklar, 2015). Al-Awadhi & Al-Dalhani (2019), for example, investigate the use of social media in marketing of academic library resources and services in Kuwait and identify the characteristics that influence the usage of social media apps in academic library marketing. According to the study, academic libraries have a good attitude toward the usage of social media. It also identified aspects such as the utility of social media tools in increasing awareness and offering needs analysis and satisfaction assessments s factors pertaining to the usage of social media for marketing academic library resources and services. Similarly, Maniki & Jain (2019) investigate the use of social media in Botswana's academic libraries. According to the findings of this empirical study, certain university libraries are utilizing social media to improve information service delivery, communicate and collaborate with users and other information professionals, and market and promote library services and resources. Aras & Colaklar (2015) also looked into the types and frequency of social media technologies in academic libraries to see how they affected development in Turkey. According to the study, the majority of university libraries use social media as a public relation strategy. University libraries explicitly employ social media technologies to alert its users to new items and resource while also providing information about the library and research.

6.2. The Role of Academic Libraries in the Context of ICT and Information Literacy

Academic libraries play a crucial role in the promotion and teaching of ICT and information literacy skills in higher education. With technological innovation and an increase in human reliance on knowledge and information, this need has grown even more pressing. Information literacy education, according to Guo and Huang (2020), is critical in helping people develop the ability to properly access and use knowledge and information. Despite getting considerable academic attention, the phrase "information literacy" lacks a universal definition. According to Webber and Johnson (2000), there are numerous definitions that enumerate the characteristics of information literacy. Paul Zurkowski, the president of the Information Industry Association (IIA), is credited for coining the term "information literacy" in 1974, according to

history. For Dipetso & Moahi (2019), information literacy is defined as the set of skills that enable people to traverse the information environment in order to address information and other challenges. They go on to say that information literacy is linked to the development of a variety of abilities such as problem-solving, critical thinking, communication, computer literacy, and lifelong learning. The phrase "information literacy" has evolved and broadened in breadth during the previous decade. This is mostly due to rapidly changing and advanced technology, which have drastically affected the pattern of information searches and the learning environment (Guo & Huang, 2020).

Rapid advancements in mobile technology, on the other hand, have resulted in fundamental changes in education, teaching, learning, research, scholarly communication, libraries and information centers, and so on (Jain, 2013). Change is unavoidable in academic libraries. Indeed, new information literacy concepts such as "networking literacy", "digital information literacy", "electronic research literacy", and "mobile information literacy" have emerged as a result of the effect of this new technology (Guo & Huang, 2020; Gabbay & Shoham, 2017; Jain, 2013). The capacity to use ICT tools to search, analyze, create, and communicate digitally is referred to as ICT and information Literacy. Several scholars have researched and emphasized the need for libraries to focus on ICT and information literacy in order to assist library users with their information retrieval tasks (Guo & Huang, 2020; Dipetso & Moahi, 2019; Wambui, Kiplang'at & Odin, 2016; Jain, 2013). The focus on information literacy should be both online and offline, according to (Guo & Huang, 2020).

An empirical study by Wambui, Kiplang'at & Odin (2016), discovered that Kenyan universities (University of Nairobi and Kenyatta University) did not have an information literacy curriculum for its distance learners. Furthermore, the majority of the students were not proficient n online searches, according to the study. Hence, the study suggests that information literacy skills are required for students to discover and get relevant information for study and lifelong learning. The paper proposes that this training take the form of electronic asynchronous training via computer-based tutorials.

Similarly, Gou and Huang (2020) study the practice of information literacy education at East China Normal University using WeChat. Tencent, Chinese High-Tech Company, launched WeChat in March 2011as a popular social networking platform app. According to the survey, 87.2 percent of China's top university libraries use the WeChat platform to teach information literacy. According to the study, information literacy based on WeChat is about teaching students how to better utilize their mobile devices to search for information that suits their needs and master an easier way to acquire and exchange information, rather than just using the technology and platform. The study also recommends that academic libraries use the WeChat for more effective communication.

6.3. The Challenges of Academic Libraries and the Return of High-Quality Teaching and Learning

Various issues have an impact on today's academic library and its role in restoring excellent teaching and learning in education for sustainable development. These difficulties can be summed up as follows:

6.3.1. Digital Revolution and ICT Infrastructure Level

Academic library resources, operations, and services have been repositioned by ICT emergence (Anuno & Okoye, 2008). Web-based and digital services are now used in academic libraries to provide information services, allowing library patrons to access information and knowledge resources quickly and remotely. ICT has impacted teaching and learning, according to Omidinia, Masrom, and Selamat (2011), and is increasingly recognized as a value across educational institutions. Support for e-learning, distance learning, and blended learning are all examples of the impact of new technology tools on education. Despite the fact that many developing nations have taken major steps to ensure the adoption and use of ICT in governance, business, education, and information service delivery, multiple studies have found that educational institutions and academic libraries face a variety of issues (Jain, 2013; Omidinia, Masrom, and Selamat, 2011; Anuno & Okoye, 2008).

One of the issues encountered by 21st century academic libraries, for example, is technical trauma and infrastructure (Jain, 2013). Jain suggests that ICT infrastructure such as internet, intranet, hardware and software, and bandwidth be improved as a way forward. This is further exacerbated by the scarcity of ICT specialist in education (Omidinia, Masrom, and Selamat, 2011). According to Obijiofor, Inayatullah & Stevenson (2005), just a few people in many poor nations have easy access to new technologies. Ignorance, overall poverty in society, a weak infrastructure support foundation (inefficient energy and telephone networks), illiteracy, and lack of fundamental computing skills, according to the researchers, are all factors.

Furthermore, due to the extensive growth of technology and information resources as well as dwindling funding, Ashiq, Rehman, and Mujtaba (2020) believe that academic libraries are currently facing visionary leadership crises; changing user behavior, change in higher education, perplexing policies, and multiple human resources challenges. They go on to say that a lack of proper funding leads to the deterioration of existing infrastructure as well as reduction in training opportunities. Beside, academic libraries' use of social media tools to help teaching and learning is hampered by a lack of social media policy, a lack of money, copyright difficulties, insufficient skills, and a lack of awareness (Maniki & Jain, 2019).

6.3.2. Information Literacy Level

It is critical to develop ICT and information literacy abilities, especially in this era of information overload brought on by technological innovation. As a result of ICT and information literacy, individuals must learn new skills to collect, sort, and preserve materials for learning and organization. Mastering information literacy skills, according to Cheug (2013), will enable user to find the relevant information, evaluate the information source, and address learning difficulties. Several studies (Gou & Huang, 2020; Durodulu &Mojapelo, 2020; Chigwada, 2019; Gabbay & Shoham, 2017; Wambui, Kiplang'at& Odin, 2016) have found that information overload, lack of proficiency in online search, poor access to ICT tools, negative attitudes of students and academic staff, and the inability to use ICT tools are some of its challenges.

7. Recommendations

The following recommendations are made based on the desktop review for policy makers, school administrators, instructors, and students to consider:

- To improve library services, academic libraries must harness the potential of social media. Relevant authorities must ensure that the library have the necessary software and technology to support the social media platforms. Establish a social media policy that is consistent with the library's mission. Additional money should be made available to the library in order for it to meet its infrastructure and training needs.

- Academic libraries must assume responsibility for ICT and information literacy instruction to guarantee that students and faculty have the necessary abilities to properly engage in the twenty-first century. Yarmey's study (as cited in Guo & Huang, 2020) shed light on the necessity of information literacy education and stressed the need for students to be guided and assisted while selecting resources, websites, and apps in the mobile environment. Furthermore, relevant authorities should guarantee that teachers have a thorough understanding of educational pedagogies that might help students develop information literacy (Dipetso & Moahi, 2019). Academic librarians and instructors should collaborate in the dissemination of information literacy. This is to guarantee that information literacy skills are transferred. However, the teaching and learning process should be built on an open, interactive, and exploratory educational paradigm, rather of a course that a teacher teaches students (Guo & Huang, 2020).

8. Conclusion

The proceeding debates have demonstrated that academic libraries would play a critical role in restoring quality teaching and learning in Nigeria's educational system for sustainable development. Adoption and use of social media platforms, as well as ICT information literacy, can help get there. Since a result, this article advocates for increased ICT and information literacy education at Nigeria's higher institutions, as

it enables academic library consumers to better understand how to use technology and mobile devices to get relevant information they require. As a result, librarians, educators, and policymakers should recognize that the academic library is a key player in the issue of restoring high-quality teaching and learning.

References

AlAwadhi, S., & Al-Dalhani, S. M. (2019). Marketing academic library information services using social media. Library Management, https://doi.org/10:1108/LM-12-2017-0132

Anunobi, C. V., &Okoye, I. B. (2008). The role of academic libraries in universal access to print and electronic resources in developing countries. Library Philosophy and Practice (e-Journal), 189.

Aras, B. B., Colaklar, H. (2015). The role of social media in the promotion of university libraries. Journal of Library and Information Sciences, 3 (2), 79-105.

Ashiq, M., Rehman, S. U., & Mujtaba, G. (2020). Future challenges and the emerging role of academic libraries in Pakistan: A phenomenology approach. Information Development

Bello, S. A., &Ezeri, C. H. (2020). Globalization of library and information services: An assessment of the level of ICT deployment in academic libraries in Oyo State, Nigeria. Library Philosophy and Practice, 1-20.

Chigwada, J. P. (2019). Opportunities and challenges of academic librarians in teaching information literacy in institutions of higher learning in Zimbabwe. International Journal of Library and Information Services, 8 (1),

Dipetso, C., &Moahi, K. H. (2019). Information literacy for development: a case study of the information literacy of secondary school students in Botswana. In Proceeding of DLIS 2019 International Conference (pp. 234-253). Gaborone, Botswana: Department of Library and Information Studies

Durodulu, O. O., &Mojapelo, S. M. (2020). Contextualization of information literacy environment in the South African education sector. Electronic Journal of e-Learning, 18 (1), 57-68.

Gabbay, L. K., &Shoham, S. (2017). The role of academic libraries in research and teaching. Journal of Librarianship and Information Science, 1-16. DOI10.1177/0961000617742462

Guo, J., & Huang, J. (2020). Information literacy education in WeChat environment at academic libraries in China. The Journal of Academic Librarianship, 46 (102073), 1-6.

Jain, P. (2019). Integration of IFLA code of ethics and sustainable development goals. In Proceeding of DLIS 2019 International Conference (pp. 215-232). Gaborone, Botswana: Department of Library and Information Studies

Jain, P., &Akakandelwa, A. (2016). Challenges of twenty-first-century academic libraries in Africa. African Journal of Library and Archives and Information Science, 26 (2), 147-155

Jain, P. (2013). A paradigm shift in the 21st century academic libraries and librarians: prospects and opportunities. European Journal of Academic Research, 1 (3), 133-147.

Javed, M. W., & Bhatti, R. (2015). Usage of social media by medical and dental students at Nishtar Medical College, Multan, Pakistan. Journal of Hospital Librarianship, 15 (1), 53-64.

Kamau, G. W., Kiplang'at, J., &Odini, C. (2016). Access to and use of ICT in the provision of information to distance learners in Kenyan Universities. Emerging Trends in Libraries and Information Centres, 51- 73.

Konig, A., & Evans, J. (2013). Introduction: Experiment for sustainable development? Living laboratories, social learning, and the role of the university. Regenerative sustainable development of universities and cities.

Maniki, T., & Jain, P. (2019). Adoption of social media in selected academic libraries in Botswana. In Proceeding of DLIS 2019 International Conference (pp. 321-340). Gaborone, Botswana: Department of Library and Information Studies.

Mason, M. G. (2010). Strategic management for today's libraries, New Delhi, India: Ess Publications.

Ndung'u, J., &Otike, J. (2018).Community information services in public libraries: A case of KNLS Nairobi County.

Nworie, J. C., Obiyan, O. M., Nworie, H. O., &Irunebo, G. H. (2018).Exploring the role of libraries in using digital platforms to achieve quality education for sustainable development in Nigeria. Journal of Information Knowledge Management, 9 (1), 89-99.

Okiy, R. B. (2010). Globalization and ICT in academic libraries in Nigeria: the way forward. Library Philosophy and Practice, 1-10.

Obijiofor, L., Inayatullah, S., & Stevenson, T. (2005). Impact of new information and communication technologies (ICTs) on socio-economic and educational development of Africa and the Asia-Pacific region. Paper presented at the 3rd working conference on information and communication technology solutions for government operations, e-government, and national development held at the Accra International Conference Center, Ghana, 27-28 January 2005.

Omidinia, Masrom &S elamat, (2011). Review of e-learning and ICT infrastructure in developing countries: a case study of Iran. American Journal of Economics and Business Administration, 3 (1), 120-125.

Ramkumar, P., &Vinayagamoorthy, P. (2020). Role of academic libraries in e-learning. Science Technology and Development, 9 (2), 1-9.

Rogers, E. M. (2003). Diffusion of innovation (5th Ed.). New York: The New York Press.

Rogers, E. M. (1995). Diffusion of innovation. New York: The New York Press.

Stewart, M. C., Atilano, M., & Arnold, C. L. (2017). Improving customer relationship with social learning: a cases study of an American academic library. International Journal of Customer Relationship Marketing and Management, 8 (1), 49-61.

Uziogwe, C. (2018). Meaning of library origin types and their function. National Open University of Nigeria Library Orientation Manual. Jabi, Abuja: NOUN Press

Webber, S., & Johnston, B. (2000). Conceptions of information literacy: new perspectives and implications. Journal of Information Science, 20 (6), 381-397.