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# Funding and ICT use as Determinants of Sustainable Library Development

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**Abstract:** Sustainable library development stems from educational aspect of the United Nations Sustainable Development Goals (Goal 4). This paper examined funding, ICT use and sustainable library development. Descriptive survey research design was adopted for the study with a population of 222 respondents (professional librarians). Purposive and total enumeration sampling techniques were used for the study. Questionnaire was used for data collection. The descriptive statistical tools were used for data analysis. Three research questions guided the study. The study found that sustainable library development is a necessity for every library and that funding and ICT use play significant role in the actualization of sustainable library development. Funding bodies (government) and revenue from charges to users for individual services were found as the major sources of fund available for sustainable library development. The libraries should maximize income generation from sources such as philanthropic donations, leveraging, grants, and commercial activities rather than relying majorly on funding bodies, and revenue from charges to user for individual services. The libraries should ensure continuous use of ICT for sustainable library development.

**Keywords:** Funding, ICT, ICT use, Library, Sustainable development, Sustainable library development

## Introduction

One of the burning issues in the world today is how to ensure sustainable development in all areas of human endeavour, including the library. Sustainable development is a matter of serious concern to all nations including

organizations such as ECOWAS, African Union (AU), European Union (EU), United Nations (UN), etc. The 2030 Agenda for Sustainable Development is a worldwide agenda needed for all and sundry to inhabit and expand in a sustainable and prosperous

world. Sustainable Development Goals (SDGs) were adopted by 193 governments, civil society and the private sector during the General Assembly of the United Nations held in New York in September 2015, and all the 17 goals and 169 targets were ratified (Pedro, 2018). The participating countries aimed to accomplish the goals and targets by 2030. The goals cover opportunities for development and challenges in the areas of climate, food and ecosystems, education, poverty, job creation, innovation, etc (Lorren & Nikki, 2019). The United Nations SDG 4 is to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” (United Nations, 2015). One of the rationales for having an extensive educational target in the 2030 Agenda for Sustainable Development is for participating countries to provide education to a vast number of people where they can get training needed to be active participants in the process of accomplishing tasks to corroborate the Paris agreement and SDGs (Erickson, Robinson, Cutsor & Brase, 2016). Education as one of the most vital United Nations SDGs impacts progress to other SDGs, including the Paris agreement.

Sustainable development is threatened by the amplified demands and necessity of rising population in relation to industrial development, poverty alleviation, and education. Fundamental to the actualization of equitable quality education is sustainable development of the library. The sustainability concept in libraries is also referred to as “Greening of

libraries” or “Green libraries”. Universities across the world have made sustainable library development one of their policy goals by acquiring the right information resources in the right quantity at the right time. They also ensure that the libraries meet the needs of their funding institutions through the provision of services that meet the information needs of the patrons (Adekoya, 2018). Sustainable library development also entails consistent funding of the libraries and adopting the modern technological innovations in the delivery of library services. This suggests that funding and ICT use are paramount in achieving sustainable library development.

Sustainable Development Goals describe “the World we want” (Pedro, 2018). United Nations Conference on Environment and Development (1992) defines sustainable development as the ability to respond to the needs of the present, without compromising the ability of future generations to meet their own needs. The development needed in the present is geared towards the use of technology as a mean of modifying the productive processes as sustainable development takes into cognizance the balance among the needs of society, the economy and the environment (Artur, 2019). Meanwhile, education is a primary need of every society and ICT has modified the way educational services are delivered in the modern days. Also, procurement of educational facilities depends on the available funds. Due to the fact that libraries are educational aspect of every institution, funding and the use of ICT

are therefore fundamental in achieving sustainable library development.

No aspect of educational facilities requires sustainable development in terms of funding and use of ICT more than the libraries, especially academic libraries. Libraries have to be continually funded to acquire the information resources in both print and electronic forms needed for scholarship and research. Though a number of works have been done in area of library funding and the use of ICT in library, only few works have specifically emphasized how funding and ICT use can guarantee sustainable development of libraries in academic environment, particularly in Nigeria. More so that the adoption of SDGs for transforming to a sustainable society by the year 2030 has led to opening up of new vistas of sustainability research in library sector, this study therefore looks into what sustainable library development entails, the extent of funds available for sustainable library development, and the extent ICT use in library operations sustain library development. Specific focus is given to academic libraries. This is because academic libraries within the context of Nigeria are usually saddled with a gamut of activities that require adequate funding and deployment of technology to satisfactorily support the teaching, learning and research mandate of their parent bodies. While this claim is the ideal, it is not certain whether it represents the current situation or not. However, if the answer is in the affirmative, are funds adequately and consciously disbursed to academic libraries and ICT deployment with a

view to achieving sustainable library development? It is against this backdrop this study sets to investigate funding, ICT use and sustainable library development

### **Statement of the Problem**

From the ancient time till date, the imperativeness of libraries has been acknowledged in a progressive march towards conserving and preserving human intellectual works for posterity and meeting the information needs of the patrons. The provision of higher education across the world requires sustainable library development by perennially acquiring the pertinent information resources and making use of ICT in the performance of library operations. A number of empirical studies have shown that the pursuit of sustainable library development in most countries across the world in an effort to achieve the 2030 Agenda for Sustainable Development faces some colossal obstructions (Adekoya, 2018; Artur, 2019). Preliminary investigation indicated the same situation in Southwest, Nigeria. This may not be unconnected with inadequate funding and low deployment of ICT infrastructure in the libraries. The budgetary provision for most libraries is considerably low and modern ICT infrastructure are not adequately deployed in the performance of library operations. Discourses on sustainable library development in diverse quarters have reflected that the attainment of sustainable library development does not only require adequate funding but also the deployment of ICT in key areas of library operations such as cataloguing

and classification of information resources, circulation services, institutional repositories, library networking, resource sharing, and information retrieval. However, the frequency of getting funds for major library projects and the extent to which the use of ICT in library operations facilitates sustainable library development remains vague as there is dearth of literature that examine the relationship between funding, ICT use and sustainable library development. It is on this premise that this study intends to investigate funding and ICT use as determinants of sustainable library development.

### Objective of the Study

The main objective of the study is to investigate how funding and ICT use will influence sustainable library development while the specific objectives are to:

1. determine what constitute sustainable library development;
2. ascertain the frequency of getting funds for major library projects to ensure sustainable library development; and
3. find out the extent to which ICT use in library operations sustain library development.

### Research Questions

The following research questions were raised as a guide to the study

1. What constitute sustainable library development?
2. What is the frequency of getting funds for major library projects to ensure sustainable library development?

3. To what extent does ICT use in library operations sustain library development?

## Literature Review

### Sustainable Library Development

Sustainable development is long-term development plan that meets the needs of people today without compromising the effort of people in the future to meet their needs (IFLA, 2018). Sustainable library development falls under the United Nations Sustainable Development Goal 4 in the United Nations 2030 Agenda (ensure inclusive and equitable quality education and promote lifelong learning opportunities for all). As stipulated in Target 16:10 of the 2030 Sustainable Development Plan, public access to information and protection of fundamental freedom is ensured in accordance with national legislation and international agreement. Express access to profitable information in whatever form is progressively guaranteed with a view to bringing equitable development sustained over time. Meanwhile, the Lyon Declaration on Access to Information and Developments reveals that half of the world's population does not have access to online information. It is the duty of libraries to provide access and opportunity to information resources for all in the knowledge society (IFLA, 2018).

Sustainable development is an inspirational narrative, concrete goal and specific target that enable libraries to decide on what needs to be done to solve most of their pressing challenges (Artur, 2019). Sustainable library development is a set of refreshed goal

that a library is expected to use to frame its agenda and policies over time. Ephraim (2003) refers to sustainability in academic libraries as consisting of all areas of institutional and statutory information requirements that will be of advantage to students now and beyond. His belief is that sustainable library development focuses mainly on the sustainable use of academic library resources and services.

The works of Tyonum and Ezeog (2015) and Edom (2007) emphasise the position of library in sustainable development by claiming that effective use of library is the bedrock of academic excellence for national development. However, no claim was laid on how sustainable library development can be facilitated. Adekoya (2018) found that the development of skills to examine information sources, development of skills to access digital information and increase in scientific research are primary to sustainable library development. The study concluded that through enhanced application of technology to promote education and ensuring public access to information and intellectual freedom, an optimal level of development in the libraries are achieved.

Lack of access to vital information by people, especially those in remote communities in Africa, hampers sustainable development. In a meeting of IFLA leadership in 2017, IFLA President, Donna Scheeder, stated that “there is no truly sustainable development without access to information, and no meaningful, inclusive access to information without libraries”. She pointed out that lack of

strong government support for libraries in Africa has turned the digital divide which libraries strive to achieve into an information and knowledge divide.

Sustainable library development is the systematic development that libraries desire. Bell (1999) uses paper’s matrix model to depict four different library futures, namely failing library, conventional library, technocentrist library, and transformational library. He identified failing library as those that have faltered in sustaining their core values and failed to develop strategies to foster their development. Failing library defiles sustainable development in the face of weak library leadership and decision making guided by short-term satisfaction rather than sustainability. This condition is worsened by the library’s failure to keep pace with ICT innovations. Bell (1999) posits that failing library cannot guarantee sustainable development because of the following:

1. Weak library leadership which lacks vision and sustainability thinking;
2. Failure to innovate using latest ICT;
3. Control over library future has shifted to other administrators; and
4. Collaboration with other libraries is virtually non-existent.

### **Frequency of Getting Fund for Sustainable Library Development**

Ensuring sustainable library development in knowledge society requires that the libraries are well funded. The financial challenges facing the government have significant effect on the finances of public tertiary

institutions. Fiscal challenges threaten university as a result of which academic services are cut and budget shrinks. As universities encounter shrinking budgets, increasing demand for services, declining revenues, and costly academic infrastructure upkeep, the allocation for the procurement of library infrastructure equally declines. Ensuring sustainable library development in the face of financial difficulty requires mapping out strategies through which funds can be generated to acquire the information resources needed to meet the needs of the patrons. However, Stoffle (1991:17) emphasizes that “the best-funded libraries are not necessarily the most effective or creative at anticipating or meeting user needs”.

Funding is a great challenge to libraries. Libraries cannot generate funds adequate to run their services. They have to depend on funds allocated from their parent institutions (mostly government). These funds are equally always insufficient to meet library needs (Afebende, 2017). Library funding precipitates on expectation from future library needs based on the assessment of the quality of the library’s contribution to research, education, and public service activities. Meanwhile, the incessant change and improvement in technology, information sources, as well as information delivery mechanisms necessitate improvement in library funding requests. Stoffle and Weibel (1995) state that any factor influencing higher education will equally affect libraries and their funding. Any change in higher education such as student and staff demography, increased specialization within the disciplines,

increased academic programmes, etc, create new demands on the library with the persistence of the old demands. Also, the rising cost of scholarly publications, economics of publishing, and national information policy overheat the library finances.

Libraries as the hub of academic institutions need to be well funded. Libraries invest a substantial amount of their budget in acquiring library infrastructural facilities. It is difficult to achieve overall sustainability without financial sustenance. However, the rising costs of library resources and diminishing budget affect the quantity and quality of materials libraries can procure; especially now that there is depletion in government revenue (Rifaudeen, 2015). Meanwhile, funds are needed to acquire the ICT infrastructure and modern technologies in the libraries. Libraries have to be well funded so as to be supportive of education in the modern era of technological evolution. As there is massive deployment of technology in the performance of library operations, equipment maintenance and software cost also increase due to the use of sophisticated ICT facilities in support of users and major staff work.

Due to paucity of fund, sustainable development of libraries in Nigerian may not be guaranteed. Meanwhile, to ensure that academic libraries in Nigeria are well funded, NUC had in 1993 mandated that 10% of the university approved recurrent annual budget should be set aside for library development (Ishola, 2014). Regrettably, this policy is scarcely executed in most Nigerian universities

as some Vice Chancellors see the library fund as part of their statutory control to guarantee accountability as the chief accounting officer of the university. In 2001, the 10% of the approved recurrent budget earmarked for library development in 1993 in Federal university libraries was cancelled (Achebe, 2012). As at today, there is no specific minimum standard financial support to federal university libraries (Ishola, 2014). The poor funding of university libraries and vague implementation of annual budget for some Nigerian universities affect the extent of sustainability of library development.

The sources of funding available to libraries are limited and these funds may not be able to sustain library development to an appreciable extent. On rare occasion, libraries secure philanthropic donations to fund their projects and acquire information resources. Schatteman and Bingle (2015) claimed that philanthropic donation is one of the revenue strategies for libraries. As such, there is need to appreciate the significant impact of philanthropic donations as non-profit organizations are ready to be part of the success story of the libraries. In some cases, government provides the library architectural infrastructure and the university depends on philanthropists to provide the funding.

Funding is a significant force to reckon with in sustainable library development because libraries have always been resourceful tools for educational advancement at all levels of education (Itsekor, 2011). Stoffle, the former Library Director at University of

Wisconsin-Parkside, posited that due to inadequate funding, the library was forced to rethink information delivery and concentrate on access as the university was not financially capable to invest in traditional information ownership (Stoffle, 1991). In modern days, libraries are not only expected to be effective and bring new innovation but the staff and library management are also expected to be engrossed with the ways to fund the library. Stoffle (1991) suggested the following ways of funding library for sustainable development.

1. **Leveraging:** This entails maximizing the library resources by ploughing in income to provide new services. In this context, the library organises programmes co-sponsored by organization outside the library. The income generated from the programmes is injected into the library.
2. **Grants:** This fund comes from outside the university. Most grants come from transnational corporate organizations.
3. **Fund-raising:** Friends of the university and private organizations usually support the library in this area.
4. **Fees:** These are the fees internally generated by the library. This may come from overdue, fines, misplaced books, etc.
5. **Entrepreneurial activities:** These include publishing and printing books or other materials. Also included in this category is selling of stationeries, reprographic services, book binding, etc.

Adequate level of funding is vital to the success of libraries in fulfilling their

roles. Inadequate fund over a long-term will make it difficult for libraries to develop policies for service provision and as well secure effective use of available resources. Funding is needed when a library is established and should also be sustained on an assured and regular basis as library and information services promote sustainable development by ensuring freedom of access to information (IFLA, 2017). IFLA (2001) proposes the following sources of funding for sustainable development of library.

1. Block grants
2. Donations from funding bodies or private individuals
3. Revenue from commercial activities, e.g., publishing, book sales, and sale of works of art.
4. Revenue from user fees, e.g., fines
5. Revenue from charges to users for individual services, e.g., photocopying and printing facilities
6. Sponsorship from external organizations

### **ICT Use for Sustainable Library Development**

What drive the library revolution today are technological advances. Libraries in developed economies such as Canada, China, Britain, etc, have acknowledged the need for the use and implementation of ICT strategy as a vital component of their sustainable development (Tahir, 2008; Mujahid, 2002). Libraries require an integrated ICT agenda to sustain their developmental expectations. In the current information age, the growth of the ICT has contributed significantly to the advancement of libraries and their operations and services (Rifaudeen, 2015). Libraries are now experiencing a

high wave of development as the application of the search engines, Web 2.0 and social media enable patrons to navigate, access and retrieve high volume of information. Patrons have free access to search and retrieve free and open source information in Open Access Digital Archives, and Open Access Institutional Repositories. Libraries can as well subscribe to fee-based products and services such as online commercial databases and e-books to enable their patrons have access to scholarly research information so as to align the libraries with the information needs of their patrons.

One of the areas of intervention of ICT in sustainable library development is the establishment of institutional repositories and services for intellectual access which stimulate continuous use of the libraries' digital information resources. Pedro (2018) claims that digitizing library services is paramount to sustainability of library and information services. Sustainable library development entails libraries digitally projecting their scholarly collections and contents for the world to behold. As such, university libraries encourage academics to place their publications into repositories with a view to enhancing availability and wide visibility so as to ameliorate the research culture.

The use of ICT fosters rapid library development in the provision of library resource that meet the needs of the teaming patrons. Through the use of ICT, libraries employ digital information and services to meet the needs of the patrons. Javed (2016) posits that ICT has contributed greatly to the

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performance of library operations such as cataloguing, reference services, circulation management, serials control, etc. ICT has changed the mode of acquisition, technical processing, periodical subscription, and circulation activities in the library and this enables library users to get desired information and services needed in shortest time and with less involvement of manpower. In relation to the position of Javed (2016), the trend now is that deploying ICT for sustainable library development transforms the library to ICT-based user services which provide: easy access to information, remote access to users, round the clock access to users, access to unlimited information from different sources, information flexibility to be used based on requirements, increased flexibility, and reformatting and combining data from different sources.

ICT use facilitates development in all areas and departments of the library. Bhoi (2017) conducted a study on use of information communication technology (ICT) and library operation and found that ICT is adequately deployed in library security, archiving, preservation and digital repository, resource sharing, use of library automation software, acquisition, cataloguing, classification,

circulation, reprographic service, bibliographic service, database search guide, and document delivery service.

### **Methodology**

Descriptive survey research design was used for the study. The population of the study was 222 librarians in the university libraries of 15 public universities in South-west, Nigeria. Purposive and total enumeration sampling techniques were used for the study. The 15 universities were purposively chosen because they were the public universities in the area covered by the study while total enumeration sampling technique was used to capture all the librarians in the universities. Baxter and Babbie (2004); Egbule and Okobia (2001) posit that when the population is small and manageable, the entire population can be used for the study. Questionnaire was used as data collection instrument. Data generated from the returned copies of the questionnaire were analysed using descriptive statistics. The criterion mean was set at 2.50, indicating that any mean above 2.50 was considered high and the mean below 2.50 was considered low. These were carried out using SPSS version 21.

## Presentation of Result

Table 1: Questionnaire Administration and Response Rate

Name of Library	No. of Librarians	Questionnaire Returned	Response Rate (%)
Kenneth Dike Library, University of Ibadan	33	24	72.7
Hezekiah Oluwasanmi Library, Obafemi Awolowo University, Ile-Ife	30	21	70
University Library, University of Lagos, Akoka	24	16	66.7
Nimbe Adedipe Library, Federal University of Agriculture, Abeokuta	25	18	72
Fatiu Ademola Akesode Library, Lagos State University, Ojo	16	12	75
Albert Ilemobade Library, Federal University of Technology, Akure	15	13	86.7
University Library, Olabisi Onabanjo University, Ago-Iwoye	14	11	78.6
Olusegun Oke Library, Ladoke Akintola University of Technology, Ogbomoso	14	9	64.3
University Library, Ekiti State University, Ado-Ekiti	13	11	84.6
University Library, Osun State University, Osogbo	9	8	88.9
University Library, Federal University, Oye-Ekiti	6	5	83.3
University Library, Adekunle Ajasin University, Akungba-Akoko	6	4	66.7
Tai Solarin University, Ijagun	8	5	62.5
University Library, University of Medical Sciences, Ondo	6	4	66.7
University Library, Ondo State University of science and Technology, Okitipupa	3	2	66.7

Table 1 shows the response rate across the academic libraries covered in the study. One hundred and fifty eight out

of the 222 copies of the questionnaire administered were returned, representing 71.2% response rate.

Table 2: Demographic Information of the Respondents

Variable	Librarians	
	No	%
Gender:		
Male	72	45.6
Female	86	54.4
Total	158	100
Age Distribution:		
21 – 30	11	7.0
31 – 40	54	34.2
41 – 50	59	37.3
51 -60	31	19.6
61 and above	3	1.9
Total	158	100
Academic Qualifications:		
PhD	25	15.8
M.Phil.	7	4.4
Masters	126	79.8
Total	158	100

As revealed in Table 2, there are 72(45.6%) male and 86(54.4%) female in the area covered by the study. This means that there are more female librarians than male in academic libraries. The age distribution of the respondents indicates that most of the librarians (59, 37.3%) are within the age of 41 to 50 while only 3(1.9%) are 60

years and above. Table 2 equally shows that the vast majority of the respondents (126, 79.8%) are masters degree holders, while 7(4.4%) and 25(15.8%) are M.phil. and Ph.D holders respectively. This indicates that most of the librarians in academic libraries are master's degree holders.

### Research Question One: What constitute sustainable library development?

Table 3: Elements constituting sustainable library development

Elements Constituting Sustainable Library Development	Mean
Sustainable library funding	3.72
Deployment of ICT in library operation	3.63
Improved use of technology to promote education	3.49
Public access to information/intellectual freedom	3.38
Free access to digital library platforms	3.26
Development of scholarly skills	3.09
Preservation of indigenous knowledge	2.94
Resource sharing among libraries	2.08
Average mean	3.20
Criterion Mean	2.50

Table 3 reveals that the average mean (3.20) is above the criterion mean (2.50). This means that elements such as sustainable library funding (X=3.72), deployment of ICT in library operations (X=3.63), improved use of technology to promote education (X=3.49), and public access to information/intellectual freedom (X=3.38), free access to digital library platforms (X=3.26), and

equitable access to library information (X=3.09) constitute sustainable library development, except resource sharing among libraries (X=2.08).

**Research Question Two:** What is the frequency of getting funds for major library projects to ensure sustainable library development?

Table 4: Frequency of Getting Funds for Major Library Projects to Ensure Sustainable Library Development

Funds for Library Projects	Very Frequently	Frequently	Rarely	Very Rarely	Mean
Fund from funding bodies (Government)	77	81	0	0	3.49
Revenue from charges to user for individual services	75	57	19	7	3.28
Philanthropic donations	27	55	50	26	2.53
Leveraging	14	57	9	78	2.04
Grants	9	54	13	82	1.94
Fund-raising	30	11	24	93	1.86
Entrepreneurial/commercial activities	2	50	19	89	1.79
Sponsorship from external organizations	0	22	19	117	1.40
Lottery funds	0	0	0	158	1.00
Average Mean					2.15
Criterion Mean					2.50

As revealed in Table 4, since the average mean of 2.15 is less than the criterion mean of 2.50, it means that the frequency of securing funds for major library projects to ensure sustainable library development is low. Though funds from sources such as funding bodies (government) (X=3.49), revenue from charges to user for individual services (X=3.28), and philanthropic donations (X=2.53) are above average,

funds from leveraging (X=2.04), grants (X=1.94), fund-raising (X=1.86), entrepreneurial/commercial activities (X=1.79), and sponsorship from external organizations (X=1.40) are low. It was also revealed that no funds could be generated from lottery.

**Research Question Three:** To what extent does ICT use in library operations sustain library development?

Table 5: Extent ICT Use in Library Operations Sustains Library Development

ICT Use	Very High Extent	High Extent	Low Extent	Very Low Extent	Mean
Cataloguing and classification of information resources	62	91	3	0	3.39
Circulation services	60	93	5	0	3.35
Institutional repositories	57	95	6	0	3.32
Library networking	59	90	9	0	3.32
Resource sharing	54	99	5	0	3.31
Information retrieval	55	96	7	0	3.30
Archiving	58	87	13	0	3.28
Acquisition of new collections	53	93	12	0	3.26
Library security	49	100	9	0	3.25
Reference services	49	98	11	0	3.24
Reprographic services	52	90	16	0	3.23
Book publishing	49	94	15	0	3.22
Serials management	48	96	14	0	3.22
Average Mean					3.28
Criterion Mean					2.50

Table 5 shows that the average mean of 3.28 is higher than the criterion mean of 2.50 which implies that ICT use in library operations sustains library development to a high extent. ICT deployment in the studied libraries is most evident in the cataloguing and classification function ( $X=3.39$ ). This activity is closely followed by circulation function which accounts for a mean score of ( $X=3.35$ ). Ranked least in the distribution are book publishing ( $X=3.22$ ) and serials management ( $x=3.22$ ). This means that ICT use in library operations sustain library development to a high extent.

### Discussion of Findings

This study found that sustainable library funding, deployment of ICT in library operations and improved use of technology to promote education are vital to sustainable library development.

This implies that the attainment of sustainable development requires committing sufficient fund to the acquisition of relevant information resources and facilities and consistent use of ICT infrastructure in the libraries. This finding agrees with that of Adekoya (2018) which investigated “Research skills, ICT application and sustainable library development” and found that the development of skills to access digital platform, and increase in scientific research by developing research skills constitute sustainable library development. However, the finding that resource sharing among libraries does not constitute sustainable library development negates that of Jankowska and Marcum (2010) which emphasised a growing concern that supplying and supporting rapidly changing technological and networking

infrastructure, and resource sharing among libraries are required to sustain the development of libraries.

It was revealed in this study that libraries mobilise funds from different sources. However, funding bodies (government) are very fundamental in funding library projects. This agrees with the findings of Ishola (2014) that government has been the major financier of public institutions in Nigeria, including the libraries as the greatest proportion of funds available to libraries comes from the government which is the founder of the public libraries. Without timely intervention of the government by the way of committing significant amount to capital projects in higher institutions, it will be difficult for libraries to meet their financial needs. Also, Emojorho (2004), and Ubogu and Okiy (2011) claimed that government allocation, library fees and endowment funds are some of the major sources of funds to academic libraries. On the issue of philanthropic donation to the library, Schatteman and Bingle (2015) averred that there is need to appreciate the crucial impact of philanthropic donations as non-profit organizations are ready to be part of the success story of the libraries thus agreeing with the finding of this study. In relation to the finding of this study, IFLA (2001) also identified revenue from commercial activities, and revenue from charges to users for individual services as sources of funding for sustainable development of library.

The finding that ICT use in library operations sustains library development to a high extent gives credence to the assertion of Sachs (2000) that the

development needed in the present is geared towards the positioning of sustainability, which can be seen in terms of making enormous use of ICT as a strategy of modifying the productive processes in the libraries. Meanwhile Javed (2016), acknowledging the fact that ICT has greatly changed the mode of acquisition, technical processing, periodical subscription, and circulation activities in the library which enables library users to retrieve the needed information and services in shortest time and with less use of personnel, maintained that ICT has contributed immensely to the performance of library operations including cataloguing, reference services, circulation management, serials control, etc. The implication of this is that it becomes very difficult for the modern day libraries to perform their statutory roles without making tremendous use of ICT because ICT is the language of the modern libraries. This finding therefore upholds the position of Saleem, Shabana and Batcha (2013) in which application and uses of ICT in academic libraries was examined and was found that the library made adequate uses of ICT for library networking, library management, and technical communication. An agreement also exists between this finding and that of Bhoi (2017) that ICT aids archiving, preservation and digital repository, resource sharing, acquisition, cataloguing, classification, circulation, and reprographic service.

### **Conclusion**

This study provides some insights for scholars and administrators of libraries on how funding and ICT use facilitate

sustainable library development. Based on the aforementioned findings, the study has come to the conclusion that sustainable library development is a critical issue as it has its root in Goal 4 of the United Nations SDGs. Sustainable library development entails sustainable funding, deployment of ICT in library operations, improved use of technology to promote education, public access to information, intellectual freedom, and free access to digital library platforms. Funding bodies, revenue from charges to users for individual services, revenue from user fees, and philanthropic donations are the main sources of fund for sustainable library development. ICT is applied in all areas of library operations, especially cataloguing and classification of information resources, circulation, institutional repositories, serials management, and archiving.

### Recommendations

Resource sharing among libraries should be encouraged in ensuring sustainable library development. The libraries should maximize income generation from sources such as leveraging, grants, fund-raising, entrepreneurial/commercial activities,

sponsorship from external organizations, and lottery funds and also devise other prolific means of generating funds rather than relying principally on the funding bodies (government), and revenue from charges to user for individual services. Due to the need for massive deployment of relevant ICTs in the performance of routine services in the libraries, the libraries should embrace modern technologies that can facilitate the sustainability of library development.

In spite of the fact that information has been presented based on the questions posed in this study, some other factors that could predict sustainable library development were not covered in this paper. Among these are the positions of library regulatory bodies (e.g. LRCN, IFLA, etc.), and institutional commitment towards facilitating sustainable library development. There are still sufficient opportunities for further research in these areas. At a fundamental level, this study can be simulated in other libraries such as special libraries. This will enhance the views put forth in this study.

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