

# ICT Related Library Services Verses the Human Capital of Library Staff in Three Public Universities in Ghana

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**Abstract:** ICT has transformed the traditional concept of libraries from a store house of books to an intellectual information centre by facilitating global access to information. Thus, most library services are transforming from the manual system to a technologically driven system. As a result, many academic libraries have automated their house keeping functions; thereby using ICT tools to deliver web based services. This paper sought to examine the ICT capacity of library staff at the University of Ghana, University of Cape Coast and the University of Energy and Natural Resources Libraries. The study used questionnaires and interviews to solicit for responses from respondents. The findings of the study revealed that, staff from these institutions are being prepared to face the ICT world since most of them were competent in the use ICT to deliver ICT related services. However, they needed more training in order to keep abreast in delivering ICT services since ICT services in libraries is still an evolving phenomenon. It was also brought to light that despite the library staff eagerness to be trained, they were however constrained by some challenges such as lack of funds, permissions to undertake trainings not granted by superiors and lack of the ICT facilities to work with. It was however recommended that, funds for training should be provided by the management of the institutions to enable staff undertake training programmes. Adequate funds must be made available by management of institutions towards the development of their library's ICT infrastructure. Also, opportunities should be given to senior staff of libraries to partake in seminars, workshops and conferences as a means to build their capacity in ICT, and finally, in-house training programmes on ICT must be frequently organised for library staff to enable them adapt to the constantly changing technological trends.

**Keywords:** Information Communication Technology (ICT), Natural resources libraries, Technologically-driven system.

## I. INTRODUCTION

Within the fraternity of academic institutions exist academic libraries, whose mandate is to provide relevant information resources that is in line with the vision and mission of the institution in which they operate. The function of academic libraries in the era of Information Communication Technology (ICT) is important to the future well-being and progress of academic institutions. According to [1], ICT has transformed the traditional concept of libraries from a store house of books to an intellectual information centre by facilitating global access to information. The application of ICT tools in libraries has drastically affected the way things are done. This dynamism in libraries as observed by [2] cited in [3] is fuelled by three key factors namely: the need to adapt to a changing environment; the need to improve existing products and services; and the need to make use of new opportunities.

Most library services are transforming from the manual system to a technologically-driven system. In this regard, many academic libraries have automated their house keeping functions, thereby using ICT tools to deliver web based services as well as delivering other electronic services which are not online or does not require internet connectivity to operate. Sharing of information through digital sections has become an attractive idea for Librarians [4].

Also, users' needs have changed. Many have adopted electronic habits and expect that libraries provide ICT facilities and services which include electronic support services, E-reference services, access to catalogues remotely, access to computer assisted tutorials and many more. [5] noted that, the development of ICT's in libraries means that the mission of libraries must evolve to include access to all forms of information, continuous improvement of resources and expertise to meet users' needs, information literacy skills, and co-operation through local,

national and international networking. Obviously, the role of the librarian is also changing in the digital revolution to reflect the current approach of using ICT's to package and manage knowledge in libraries. According to [6], knowledge of the use of ICT tools and resources to access, retrieve and evaluate information should be a must for all library staff in the digital library environment. Library staff must possess the requisite ICT literacy skills to enable them discharge their duties effectively. To this end, librarians need capacity building to offer services electronically using ICT tools in the continually changing and challenging web environment. [7] stated that ICT is the gateway to electronic libraries since most academic libraries have developed electronic services. As a result, librarians need to build capacity in using ICT tools to discharge their duties effectively in order to remain relevant.

In the light of this, it has become prudent to investigate the ICT capacity of library staff to deliver ICT related services in public university libraries in Ghana. The researchers were interested in finding out the measures that have been put in place to build the ICT capacity of library staff to help meet the increasing user demands thereby achieving academic excellence. Three university libraries, that is, the University of Cape Coast (UCC), the University of Ghana (UG) and the University of Energy and Natural Resources (UENR) libraries were purposely selected for the study. Their selection was based on the significant roles they play in nurturing human resource for the Ghanaian economy.

## II. STATEMENT OF THE PROBLEM

[8] stated that building human resource capacity is a key factor in coping with changes especially in the digital age where tools and technologies evolve in geometric rate. Hence, the success or failure of any library largely depends on the level and capacity of its staff.

A preliminary observation made by the researchers concerning these three universities disclosed that some of the library staff do not have requisite and adequate skills to work in ICT related jobs. In other words, there is a disconnection between ICT related jobs and the library staff's ICT skills in these universities. However, libraries need to have competent library staff who can use ICT-based resources and tools to deliver ICT related services successfully [9].

To investigate the realities on the ground and to fill the gap in the literature, this study mapped out ICT related services available to the ICT capacity of senior staff (middle level manpower) of these three important universities in Ghana.

## III. OBJECTIVES OF THE STUDY

The study specifically examined the ICT capacity of librarians to deliver the available ICT related services in these three institutions. Training opportunities for building the ICT capacity

of library staff in these three institutions were also looked at. In addition, the challenges that inhibit building the ICT capacity of the library staff of these institutions were identified.

## IV. LITERATURE REVIEW

### A. Changing Roles of Librarians in the ICT Era

Emphasis has been placed on the fact that ICT revolution has affected every aspect of the librarian's role in information provision. It has resulted in a drastic change in library collections and services from print to digital or electronic.

ICT is increasingly becoming the number one choice in libraries because it grants access to numerous sources of information; enhances resource sharing, assists in professional development through group discussions, mail lists and also; used to establish linkages with other libraries worldwide. This gives the library some prestige because through the use of ICT tools, the library is able to provide useful and current information at a faster rate. According to [10], technology has made library functions such as acquisition and processing of materials, storage, indexing, and retrieval of information faster, cheaper, and more efficient. Through ICT, academic libraries deliver services to users online. For example, users can now browse through the collections of academic libraries online. Thus users can stay in the comfort of their homes and use ICT tools access the Online Public Access Catalogue (OPAC) of Academic Libraries. The use of electronic tools through ICT has drastically changed the roles of librarians.

According to [11] new roles have emerged for library professionals due to the introduction of ICT into library and information services. [12] also affirmed these new roles of library professionals as the creation of web pages, development of digital contents, collaborators, information brokers, educators, policymakers and business managers. Summarising the role of librarians in the electronic age, [13] stated that the librarian is the gateway to the future and past, knowledge manager, organizers of networked resources, advocates for information policy development, community partners, sifters of information resources, collaborators with technology resource providers, technicians and individual information consultants. In the same vein, [14] identified the emerging roles of information professionals in a digital environment to include: selecting electronic resources and evaluating their quality; developing expeditious and effective locator tools to make the complex web of resources more and readily accessible to users; bringing value added components and indexing the numerous resources, which will continue to proliferate since anyone can now publish on the web. The authors also indicated that librarians also aid in delivering information services which include assessing the authenticity and quality of what is found, determining whether an identified document is worth downloading; and lastly, functioning as a bridge between system designers and

users by having sufficient credibility with programmes and understanding users' needs.

To remain relevant in these new roles, [15] stated that, the information professional, thus the librarian must change and adapt to the new electronic information environment, learn about new technologies and be aware of the strengths and weaknesses in them. Information professionals or librarians in Academic Libraries are not supposed to be frightened of technology. They should rather embrace it and utilise it to be able to come up with all the shortfalls in them for the necessary training/workshops to be organised for its efficient use. The librarian as the manager of the changing digital environment must be equipped with a wide range of ICT skills and transferable skills in order to remain productive in the profession.

For these reasons and more, training to acquire relevant skills in ICT should be the focus of librarians and information professionals of today. This will enhance the development of structured databases with proper indexing of information for easy access in the library and on the Internet.

### *B. Prospects in Capacity Building for Academic Libraries*

Human capacity development for librarians is of high priority in recent times. According to [11], capacity building is an essential part of the modern information professional's career planning & prospects. Librarians with better personal, professional and technological skills have great opportunities and a bright future in modern libraries. Scholars have argued that the labour force needed most in today's world must have the appropriate information management skills. Since librarians provide individuals and organizations with the information vital for sound and informed decisions, they are essential in sustaining development efforts. [16] studied 500 employees using descriptive-analytic approach and found a clear link between job empowerment in the form of capacity building and job performance. He stated that empowering staff of an organisation plays an important role in employees' satisfaction thus leading to a better performance. Similar finding was reported by [17], whose results also showed a significant positive relationship between employees' capacity building and job performance.

Another study conducted by [10] on tools for capacity building in libraries in developing countries, revealed that, any library established in any organisation must be ready to make personal sacrifices towards a sustainable professional development within the institution. This is because the provision of manpower to the sectors of the nation's economy, the literacy levels of the citizenry, the availability and wider dissemination of knowledge for productive research are all centred on the existence of a well nurtured and adequately funded library and information services in the institution. Thus, for libraries to remain relevant and function satisfactorily, [18] were of the

view that the basic function of the staff of any typical library or information centre is to manage the human knowledge through the collection and acquisition of all available and relevant information resources both in print and electronic, organize the information resources, preserve them, be able to retrieve them and disseminate them to the right users in their most appropriate package and in a timely manner. They added further that, to be able to carry out this duty effectively, the personnel need to acquire the relevant skills, ideas, experience and training. Thus, capacity building enables individuals to be aware of new possibilities and also be empowered by acquiring new skills to upgrade their old skills [19].

### *C. Gaps in Capacity Building in Libraries*

Since the early 1980s, libraries across Africa have experienced a very deep decline in resources which has adversely affected the delivery of services. Funds provided are grossly inadequate. In fact, most libraries do not get up to half of its minimum requirements. In most cases, the available funds only take care of staff salaries. According to [20], the challenges of capacity building stem from the lack of clear understanding around capacity building, little attention or effort to the framing of capacity building initiatives, lack of appropriate support for effective activities, and mixed evidence is supporting capacity building outcomes.

In a study conducted by [21] on capacity building through training programming for library and information science professionals in Barak Valley (Assam) brought to light that information professionals suffered the lack of encouragement from their superiors to participate in training programmes. Also (60.6%) of the information professionals revealed that the timing at which these training programmes are organised does not favour them and this was a major challenge. This is because these training programmes are scheduled at times that interrupt their working hours and for that matter, are unable to attend. For this reason, seeking permission from authorities to attend such trainings is usually not granted. Other barriers to capacity building that were identified were the lack of funding from the employers, lack of time, unwillingness to attend training program, and the expensive cost of the training [21].

[22] also noted the unavailability of the trainees as a challenge to capacity building in Southern Sudan due to political instability as a result of the War for a long time. This hindered many people from continuing with education and has therefore brought a knowledge gap. This is more prevalent in libraries in Southern Sudan.

According to [23], the non-existence or non-robust training policy is another challenge to human resource capacity. Most countries or organisations do not have a training policy in place. In places where a resemblance of training policy exists, it isn't robust enough to ensure systemic human resource development. The authors further added that there was usually a mischief on the part of the trainees and this poses a serious

challenge to capacity building. This is because some trainees see the period for capacity training as a period for relaxing. They usually report late at training venue and do not show any sign of willingness to learn [23].

According to Raymond, [24] one major challenge to capacity building was the limited availability of the appropriate frameworks and models to properly understand and frame capacity building activities. This is because while there seems to be an agreement that capacity building encompasses many components, there is no consensus on what these components are. It is also important to note that, without an appropriate structure, capacity building activities seem disjointed [25]. Situations of this nature can have a negative influence on people who would love to fund these trainings/conferences/workshops because they may see their investments in capacity building as not yielding any positive outcomes.

In a study carried out by [22], it was found that inadequate funding for training of information professionals was a challenge. It was added further that, there are no clear budgets for library and information science services hence limiting the chance for information professionals to be trained in most of the universities. Similarly, [23] identified inadequate budgetary allocation to be a challenge to human resource capacity building. Training has always been the least funded budget item and if there is a deficit in whatever was budgeted for, the budget for training is always the first casualty to fall on.

In a study by [26] cited in [6] attributed the challenges faced by librarians in building capacity in ICT to material and human factors. They noted inadequate ICT facilities, low bandwidth and unavailability of ICT facilities as the challenges that prevent library users and staff from acquiring ICT literacy skills.

[27] as cited in [29] mentioned lack of a stable power supply in large areas in developing countries as a challenge to the use of ICT to provide information services. Similarly, [29] identified shortage of ICT facilities, lack of a workable ICT policy and poor maintenance of ICT equipment as some challenges facing library staff. [28] also noted inadequate technological infrastructure as a challenge for library professionals since most African countries lacked a national ICT policy. The author added, low internet connectivity, unavailability of ICT facilities such as computers and unreliable supply of electricity as other challenges identified. All these challenges discourage library staff from building their human capital in ICT.

Literature further suggests that, capacity building is often done with an unrealistic expectation that it can be done with little time or effort [25]. However, [30] study suggested that an investment of three to five years must be in place before meaningful improvements could be achieved. In effect, assessing the effectiveness of capacity building is difficult because there is more to capacity building than just simply participating in workshops or conferences or just hiring consultants to engage your staff in strategic planning [25]. Capacity building is rather

about implementing what has been learnt from those activities during the training to strengthen the organization or institution. It is therefore necessary that the skills and systems are implemented into the day-to-day operations of the institution's culture so that it becomes part of its members.

## V. THEORETICAL FRAMEWORK

The Human Capital theory underpins this study. The Human Capital theorists see development as investing in human capital. They believe that educating someone is a form of investment which will improve the person's economic productivity. To them, the development of a particular society basically relies on how educated its members are, and how they take advantage of scarce resources to improve their education. In support of the argument, [31] stated that "Human resources constitute the ultimate basis of wealth of nations. Capital and natural resources are passive factors of production. Human beings are the active agencies who accumulate capital, exploit natural resources, build social, economic and political organisation, and carry forward national development".

In view of the above submission, developing the human capital of any organisation including libraries should not be downplayed. In this technological era, when librarians are well trained to use ICT to deliver library services, they will be more productive in providing a wide range of information resources to their clients, hence contributing to national development.

## VI. METHODOLOGY

This study adopted a convergent parallel design which enabled the researchers to concurrently conduct the quantitative and qualitative data within the same period [32]. The study employed questionnaires and interview schedules to solicit information from the population of interest. The study comprised the University of Energy and Natural Resources, the University of Cape Coast and the University of Ghana. These three institutions were selected for this study because they are all public universities and have similar characteristics which are seeking for equal academic excellence despite the vast difference in the number of years of their establishments.

The population for the study consisted of all senior staff of these three institutions. In most academic libraries in Ghana, senior staff are the middle level manpower who carry most major activities [33]. This category of staff is likely to use more ICT related gadgets to discharge their duties. In all, a total of 153 participants were used. University of Cape Coast Library had ninety-three (93) senior staff, University of Energy and Natural Resources had five (5) and the University of Ghana had fifty-five (55) senior staff. Due to the small number of the population, all the senior staff was used. The staff from the University of Energy and Natural Resources (5) were interviewed, while the University of Cape Coast and the University of Ghana answered

questionnaires. Convenient sampling technique was used to collect data. The researchers collected data themselves. The results of the study showed that out of the 148 questionnaires distributed, 125 questionnaires were retrieved. Data analysis was done using the Statistical Package for Social Sciences (SPSS) version 24 to analyse the questionnaire data while the qualitative data was recorded, transcribed and analysed using content analysis.

## VII. PRESENTATION AND DISCUSSION OF FINDINGS

### A. Demographic Information of Respondents

The study had a response rate of 125 (84%). The result demonstrates that majority of the respondents from the sampled population were males (62%) while (38%) were females. The finding shows that most of the respondents were in the age group of 20-40 years suggesting that the study involved a youthful population who may be interested in using ICT to deliver library services.

### B. Sections that Use ICT Related Tools in Libraries Understudy

Under this objective the researchers looked at the sections in the library that use ICT related tools in the three institutions. The results are presented in Table I.

TABLE I: SECTIONS WITH ICT TOOLS

| Sr. No. | Sections of Library using ICT Tool (UG) | Sections of Library using ICT Tool (UCC) | Sections of Library using ICT Tool (UENR) |
|---------|---|--|---|
| 1       | Africana                                | Africana                                 | N/A                                       |
| 2       | Electronic support                      | Electronic support                       | Electronic support                        |
| 3       | Reference hall                          | Gallery                                  | N/A                                       |
| 4       | Student reference                       | General reference                        | General reference                         |
| 5       | Digitization                            | Digital workroom                         | N/A                                       |
| 6       | Acquisitions                            | Acquisitions                             | Acquisitions                              |
| 7       | Cataloguing                             | Cataloguing                              | Cataloguing                               |
| 8       | Research commons                        | Research commons                         | N/A                                       |
| 9       | Knowledge Commons                       | Periodical section                       | N/A                                       |

Field Work 2019: Sections with ICT Tools

### C. Available ICT Tools

According to the findings, ICT tools that were deployed by staff to offer services are Internet facilities, laptops, computers, cameras, printers, photocopiers, barcode scanners and scanners. Apart from digital cameras that were not available at UENR, all other technologies were common among the three universities under study. This is a clear indication that, the academic university libraries have embraced ICT in the discharge of their duties because of the many benefits ICT has to offer. [29] noted in their study that using ICT tools in libraries enhance access to timely information.

### ICT Services Available in Libraries

The study further looked at the ICT related services that are available in these libraries. The findings revealed that most ICT services were provided in all three institutions under study with UG having the most services, followed by UCC and UENR. The result is presented in Table II.

TABLE II: SECTIONS WITH ICT SERVICES

| Sections of Library using ICT Services (UG)  | Sections of Library using ICT Services (UCC) | Sections of Library using ICT Services (UENR) |
|--|--|---|
| Reference                                    | Reference                                    | Reference                                     |
| Electronic charging and discharging of books | Electronic charging and discharging of books | Electronic charging and discharging of books  |
| Electronic book service                      | N/A  | N/A   |
| Photocopying/ Printing/scanning              | Photocopying/ Printing/scanning              | Printing/ Scanning/ Photocopying              |
| Selective document delivery                  | Selective document delivery                  | Selective Dissemination of Information (SDI)  |
| Electronic support                           | Electronic support                           | Electronic support                            |
| Web based services                           | Web based services                           | Web based services                            |
| Institutional repository                     | Institutional repository                     | N/A   |
| Electronic document delivery                 | Electronic document delivery                 | Electronic document delivery                  |
| UGCAT  | OPAC   | OPAC  |

Field Work 2019: Sections with ICT Services

In this section, respondents were made to outline the various sections within their libraries that used ICT tools in their

operations. The results are presented in Table II. Table II depicts that most sections within the various libraries under study, used ICT related services. Also, despite the fact that UENR has not been in existence for a long time, they have still tried to integrate ICT in their operations just as the universities that have been in existence for so many years.

#### *D. Competency Level in using ICT Tools*

Respondents were asked to indicate their competency level on the use of ICT tools available in their libraries using a Likert scale. 115 (92%) said they were very competent, as against 10 (8%) who indicated otherwise. This finding is encouraging as it is seen that majority of the respondents can use ICT related tools to offer ICT services. A smaller percentage was not competent in using ICT tools. These people may probably be junior staff who has been promoted to the senior staff rank as at the time of the study and it is hoped that they will learn on the job.

At UENR, responses from the interview with the library staff revealed that, the staff have basic competence in the use ICT because workshops and trainings on ICT are usually organised for them. Based on that, they are able to operate with the ICT facilities available in their library. This finding agrees with the study of [34] on measuring ICT Literacy among Library professionals in the Engineering College Libraries of Tamil Nadu. The study found that majority of the library staff were skilful in computer fundamental and internet searching and other web based services. That is, the staff had competence in using ICT to search and access information as well as the use of e-journals.

#### *E. Institutional Support in Building ICT Capacity of Library Staff*

Respondents were asked if their institutional libraries offer training in ICT to upgrade their knowledge. Out of the responses gathered, most respondents indicated yes with 54 (43.2%) from UCC and 64 (51.2%) from UG as against 7 (5.6%) who indicated that they are not aware of such training from both UG and UCC. At UENR, responses gathered from the interview revealed that ICT trainings were mostly organised for the library staff especially when a new ICT facility is procured for the library to aid the staff to effectively utilise it. In addition to that, they do learn new trends in ICT that relates to their library work on their own from the internet. This finding is a clear indication that these institutions as well as the staff themselves are preparing themselves to face the ICT world. [29] stated in their study that the use of ICT improves access to information as well as contributes to sustainable development of a nation since access to timely and useful information assist in nation building.

#### *F. Types of Capacity Building Programmes Employed by Library Management*

A further probe on how these trainings are conducted revealed that from UCC, 68 representing (54.4%) and UG 57 representing (36.8%) were of the view that their library organize seminars/workshops, in-service training and conferences for staff in ICT. Apart from institutional training some respondents (20%) disclosed that they do self-learning via youtube. This finding brings to light that, management of these institutions have their libraries at heart and are helping to build its staff capacity in this technologically driven era. In a study by [35], they opined that conference attendance enable librarians to maintain their skills base, acquire new ideas, obtain new skills, remain current, and build networks with other librarians. In a similar study by [36] on conference/workshops attendance by librarians: benefits, challenges, and prospects; respondents mentioned that conferences and workshops keep them updated 37 (69.811%); acquire new ideas 24 (45.28%); and acquire more skills 29 (54.72%). In addition, 53 (100%) of the respondents indicated that it helps them network with other librarians; discuss emerging trends in the profession 32 (60.38%) and 41 (77.35%) indicated that it gives them the opportunity to interact with experts in the profession.

#### *Reasons for Additional Training on ICT*

ICT according to [37] is not just about using a software package or using operating systems, neither is it concerned with keyboarding skills and ability to type. Instead, it is about the ability to use knowledge acquired to find, develop and present information; whether it is text, image or number. As a result, library professionals must learn and adjust to the rapidly changing environment and acquire competencies and skills to become knowledgeable assets to their various libraries and institution as a whole because it is the responsibility of library professionals to teach these skills to users and other supporting staff to enable them to search, navigate and find the right knowledge from a world of information. The study recorded that almost all the staff used for the study, 98% stated that they needed more training in ICT to be able to continually deliver ICT services since ICT services in libraries is still an evolving phenomenon. This finding corroborates the assertion of [38] who mentioned in their study that because the application of ICT poses a challenge to library professionals in developing countries, there is the need for additional training for them to augment the traditional skills so as to develop competency in the use of ICT. [39] also noted that it is a necessity for librarians to have ICT skills because it will ensure the production of highly skilled manpower for the labour market.

### G. Benefits of Building Human Capital in ICT

Various studies have mentioned the necessity of ICT skills for librarians. [40] study showed that digital literacy should be a fundamental skill possessed by all library staff. The study therefore sought to inquire from respondents the benefits they stand to gain from developing themselves in the use of ICT. Responses received are found in Table III below.

TABLE III: BENEFITS OF BUILDING HUMAN CAPITAL IN ICT

| Benefits of Building Human Capital in ICT | UCC        | UG         |
|---|------------|------------|
| Efficient staff                           | 21 (16.8%) | 28 (22.4%) |
| Well motivated staff                      | 18 (14.4%) | 20 (16%)   |
| Highly skillful staff                     | 29 (23.2%) | 20 (16%)   |
| Improved productivity                     | 28 (22.4%) | 25 (20%)   |
| Efficient service delivery                | 29 (23.2%) | 32 (25.6%) |

Field Work 2019: Building Human Capital in ICT

It is evident from Table III that majority of the respondents from the institutions under study, that is, UCC 29 (23.2%) and UG 32 (25.6%) indicated that ICT will help them to efficiently deliver their services effectively. 28 (22.4%) from UCC and 25 (20%) from UG said that ICT will enable them to improve on productivity. Responses from interviews conducted at UENR revealed that, ICT has many benefits to offer staff of libraries in this era since it saves the time of users as well as information providers. Some specific responses received from interviewees are;

*"I think ICT has a lot to offer to information providers because it gives them confidence to operate. You know what, there are clients or patrons who come to seek for information from the library and may be very knowledgeable in a particular ICT related service available due to some experiences they might have had elsewhere. It will be embarrassing if the library staff is unable to deliver as expected".* LSC

Another staff also said;

*"I think if our ICT capacity is built, it will greatly help because it will enable us to disseminate information across to a larger group of people and also, receive feedback on what we sent as well as respond to their varying information needs".* LSF

The findings from the study revealed that all the respondents agree to the fact that, capacity building in ICT is very beneficial to the work of librarians. This finding is a clear indication that the library staff from these three institutions are aware of the many benefits ICT has to offer to the library profession. This finding is thus, in agreement with a study conducted by [15] which reported that, to remain relevant in this era of ICT proliferation, librarians must change and adapt to the

new electronic information environment, learn about new technologies and be aware of the strengths and weaknesses in them.

### H. Training Opportunities that Exist for Capacity Building in ICT

In this objective, the researchers were interested in finding out if staff were aware of their libraries policy guidelines of building human capital in ICT. The study discovered that 59 (47.2%) of respondents from UCC indicated that they are aware of such policies whereas 60 (48%) respondents from UG also affirmed same. In all, 119 (95.2%) of the respondents were aware of the fact that there exist policies concerning trainings to build staff capacity. This finding thus give staff of the library the right to demand for training within the stipulated training periods. According to the findings from both institutions, a greater percentage of the respondents UCC 93.6% and UG 92.3% indicated that trainings are usually organized during inter-semester breaks.

At UENR, all staff interviewed attested to the fact that the library has policies that guide its operations. However, with a policy that highlights on building human capital in ICT alone is unknown to them. This finding confirms [29] study on the role of ICT in the provision of library services: a panacea for sustainable development in Nigeria which mentions the lack of workable ICT policies in most African countries. Some of the specific responses received from respondents are;

Interviewee LSA had this to say;

*"I am aware of the policies guiding the operations of the University Library such as circulation and cataloguing. But with regards to a policy that has to do with ICT alone is unknown to me".* LSA

Similarly, another interviewer said;

*"Policies that have to do with training I am not aware of that. But the ones on our general operations, I am aware of".* LSD

This finding shows that the libraries of these institutions have put in place policies that guide their operations. It is interesting to note that most ICT trainings are embedded in the general training for library staff, therefore staff need to enquire and watch out for such training.

The study further investigated whether these trainings help staff to deliver ICT services available in their various libraries. A greater percentage of the respondents UCC (84.6%) and UG (95.1%) indicated that such trainings are geared towards the delivery of the available ICT related services. Responses from interviews conducted at UENR also revealed that, trainings in ICT give them confidence to operate. These findings show that staff from these institutions are being prepared to face the ICT world which will help these libraries to achieve its

vision and mission. This finding agrees with the study of [11] who intimated that knowledge acquired from trainings equip librarians with professional skills and competences to be able to respond effectively to the constant changes in information needs of users as well as the development of new technologies in libraries. As a result, a significant input would be made in the academic institution they practice.

### I. Areas in ICT that Staff have been Trained on

A further probe was made by the researchers on the areas of ICT services that they have been trained on. It was discovered from UCC and UG that majority 22 (15.2%) have had training in the use of OPAC. This was followed by 21 (14.5%) who have been trained in institutional repository service. Electronic resources and electronic charging and discharging were 20 (13.8%) respectively while electronic support was 17 representing (11.7%). The results are presented in Table IV.

TABLE IV: AREAS IN ICT TRAINING

| Services Staff have been Trained on            | UCC/UG     |
|--|------------|
| online public access catalogue service (OPAC)  | 22 (15.5%) |
| institutional repository service               | 21 (14.5%) |
| e-resource service                             | 20 (13.8%) |
| Electronic charging and discharging            | 20 (13.8%) |
| electronic support service                     | 17 (11.7%) |
| photocopying service                           | 9 (6.2%)   |
| selective dissemination of information service | 8 (5.5%)   |
| Printing service                               | 7(4.8%)    |
| Scanning service                               | 7(4.8%)    |

Field Work 2019: Areas in ICT Training

This finding is a clear indication that the staff are being prepared to fit into the ICT world. It was also found in the interview conducted at UENR that, staff had been trained in the use of the Online Public Access Catalogue service (OPAC), Electronic charging and discharging, e-resource service, photocopying and printing service and scanning service.

This finding is in tandem with a study conducted by [38] study on ICT skills among library professionals in the Kerala University Library System which discovered that the respondents possess a higher level of skills in the use of e-resources. It was evident in the analysis of data that the library professionals are above average in the use of OPAC (47.06%) followed by library websites (36.28%) and online journals (31.37%). Thus, the professionals have average skills in the use of almost all the e-resources. Similarly, [9] in their study indicated that majority of library professionals working in the university libraries in Maharashtra have acquired the basic ICT literacy skills which are required to handle the day to day library operations. However, few library professionals needed to enhance their

literacy level in the area of open source library automation software, digital library software and institutional repository software.

### J. Challenges that Inhibit Capacity Building in ICT

In this objective, the researchers were interested in finding out the challenges that inhibit staff from participating in capacity building programmes in ICT. It was discovered that 12 (18.2%) indicated busy schedule as their challenge. 17 representing (25.8%) stated lack of funding as their challenge. 18 (27.3%) were also of the view that permissions to undertake such programmes are usually not granted while 19 (28.8%) also mentioned lack of motivation as a factor that inhibits them from building their human capital in ICT.

Interview responses from UENR also brought to light some challenges that inhibits the library staff from their capacity in ICT in the responses below. One of the interviewees had this to say;

*“The main challenge I face when it comes to building my human capital in ICT has to do with the inadequate nature of the ICT facilities to work with. This is because I know that even if I go ahead to build my human capital in the ICT, most of the facilities are not available for me to work with”.* LSF

Another staff was also of the view that;

*“My biggest challenge has to do with lack of funds. Sometimes there may be a course on ICT for librarians but because of lack of funds, I am unable to attend. Also lack of time is a challenge because the times such trainings are organized are usually during periods when school is in session. As a result, not all staff can be granted the opportunity to participate”.* LSD

This finding brings to light that library staff have the eagerness to be trained. However, they are constrained by some challenges as stated above. This finding concur with the findings of [38] who's study on ICT skills among library professionals in the Kerala University Library System found that 12 (11.7%) indicating lack of budget, lack of support from authorities (13.73%), lack of infrastructure & network facility 18 (17.65%) and lack of interest for Library professionals to learn ICT applications 2 (1.96%) as some constraints to library staff from acquiring ICT skills. [3] study on capacity building efforts to develop digital innovation competencies among Librarians in Nigeria also noted that funding was a major hindrance to capacity building as many librarians could not secure financial assistance to participate in capacity building programmes.

Also, [26] cited in [6] attribute the challenges to the acquisition of ICT literacy skill to material and human factors. They noted inadequate ICT facilities, low bandwidth, inadequate ICT training and unavailability of ICT facilities as challenges that

prevent library users and staff from acquiring ICT literacy skills. Similarly [28] noted inadequate technological infrastructure as a challenge for library professionals as issues such as lack of national ICT policy, low internet connectivity, unavailability of ICT facilities such as computers and inadequate supply of electricity continue to persist.

### VIII. CONCLUSIONS

The Human Capital theory used as the framework for this study was appropriate; as it can be seen from the findings of the study that all the three institutions under study gave much attention to building the human capital of their middle level staff (Senior Staff) in ICT and its related technologies. First, there are sections within these libraries that have ICT tools. Secondly, there are ICT related services that spice up the role of library staff and thirdly, there is training for staff to remain current and relevant on the job. These trainings and constant practice have made staff competent in the discharge of their duties.

### IX. RECOMMENDATIONS

Based on the findings of the study, it is being recommended that;

- Library staff should be proactive in terms of scouting for the new technological tools available for libraries to be able to suggest to management of their institutions on the need for a robust ICT facility in the library.
- Adequate funds must be made available by management of institutions towards the development of their library's ICT infrastructure. This will require the training of staff to equip them with requisite skills to be able to offer ICT related services effectively.
- Management of institutions should provide funding for library staff who wish to attend capacity building programmes especially in ICT.
- Staff of the library should endeavour to lookout for full or partially funded capacity building programmes. By so doing, challenges associated with the lack of funds to partake in capacity building programmes would be eliminated.
- Opportunities should be given to senior staff of libraries to partake in seminars, workshops and conferences as a means of building their capacity.
- Library staff should be highly motivated to develop their professional skills in ICT by participating in advanced studies and research programmes.
- In-house training programmes in ICT should be frequently organised for staff to enable them adapt to the constantly changing technological trends in the library profession. This is because some staff may have been

promoted from the position of junior staff to a senior staff and may find some difficulty in operating with some ICT facilities available in the library.

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