Availability and use of ICTs by library personnel in Nassarawa State University, Keffi, Nigeria

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Abstract
The study focussed on ICT availability and use by library personnel in Nassarawa State University, Keffi (NSUK), Nigeria. The study adopted a descriptive survey design, with a sample of fifty two respondents, of which forty two were returned and used for this study. A structured questionnaire was the instrument for data collection. The data generated were analysed using frequency and percentage. The study found that ICT such as laptops, desktops, internet, printer, scanner, and OPAC among others was available at Nassarawa State University, Keffi and was used at various levels as indicated. The study concluded by saying that emphasis should be made on the usage of the ICT available by the library personnel in the provision of library service to the users. The study recommended among others that the Nassarawa State Government should provide adequate funds for the procurement of ICT for the NSUK library to enhance the provision of library services. This could be carried out in the form of the government library intervention fund.

Keywords: ICT availability, ICT use, computer, professionals, paraprofessionals

Introduction
In the contemporary time of today, there is a need for ICT infrastructure to be made available and used to enhance the provision of library services. The emergence of ICT and its accompanying Web technologies altered both how libraries deliver information services to their users and how people prefer to access information. Traditional techniques of disseminating information have given way to technological communication. While the advancement and application of ICT in library operations have improved and streamlined information distribution and access, it has also created new roles in information provision, dissemination, and transfer. The librarian is no longer a passive figure, but rather an active one. He is no longer a bookkeeper, but rather a portal to the plethora of information sources. Information has played an important role in all societies since the dawn of civilization.

However, in recent years, its increase in volume and accuracy, as well as greater access, has significantly elevated its value in all aspects of social life. The world is undergoing an ICT revolution, a revolution that has enormous socioeconomic implications for developed and developing countries (Dhanavandan, 2017). The evolution of the Internet and the World Wide Web, as well as the introduction of interactive technologies such as e-mail, web forms, web chat, and instant messaging, has radically altered the way services are delivered. In addition to assisting users at the reference desk, the reference librarian now provides them with reference services in cyberspace by utilizing Web technologies. This new service, known as digital reference service (DRS), is defined as a mechanism through which users can submit their inquiries and have them answered by a library staff member by some electronic means (e-mail, chat, Web forms, etc.), rather than in person or over the phone. According to Awotona 2019m as cited by Ternege, Tarbo and Washima (2020), ICT is defined as a diverse set of technological tools and resources used to communicate, create,
disseminate, store, manage information and promote human activities. Mani, Hameed and Thirumagal (2019) supported this view by saying the twenty first century is a huge leap to the modern day use of computers benefitting mankind. In this regard, a basic and working knowledge of computer is essential to help things run smoothly. Ikeagwuani, Anoka and Ugochukwu (2020) on the other hand, noted that today, people use the internet as a primary source of information.

The internet can be used for efficient retrieval and meeting information needs. In this study ICT availability and use, the indicators to use are computers, software and hardware, networks, library websites, internet and OPAC. According to Ternenge, Tarbo and Washima (2020), computers, internet, printer, scanner, photocopy machine, binding machines, laminating machines, broadcasting technologies (radio, public address speakers and television), projectors and telephony among others, are widely used in today’s education field most especially academic libraries. Idakwo et al, (2018) in their study revealed that the three selected universities have the following ICT devices; computers, printers, scanners, photocopiers, flash drives, projectors, internet, external hard disk, digital camera, library software, barcode, institutional website and DVD as these items had 3 in their availability rate (AV). It also revealed that the circulation unit of the university of Ilorin and the university of Abuja have Library email while the federal university of Lokoja has none. Udofia (2019) as cited by Owushi and Mundi (2021) is of the opinion that if the computers and internet in university libraries are functioning there will be an increase in the utilization of information resources in libraries.

Academic libraries especially in Nigeria are not divorced from this technological revolution. As information providers, they are constantly under pressure to provide relevant sources of information to their immediate communities. Technology enables change and technology enforces change (Emezie & Nwaohiri, 2013). Allen and Taylor (2017) opined that academic libraries are positioned around teaching and learning institutions. This means that academic libraries must include digital sources in order to be at the forefront of information provision and dissemination. Nowadays, students, lecturers and professors prefer electronic information to manually operated devices. There is the increased availability of digital materials, students have turned to laptops and cell phones for new methods of study and research. In emerging countries, digital technology has lowered the importance and use of libraries. This is also the case in Nigeria as technological devices and the cheap availability of the internet make it easy to assess educational materials.

Objectives of the study
The broad objective of this study is to investigate availability and use of ICTs in the Nassarawa State University, Keffi. The specific objectives are to:
1. Determine the level of ICTs available in Nassarawa State University, Keffi.
2. Identify the ICTs available and used in Nassarawa State University, Keffi.

Research questions
The following questions are answered in the study:
1. What is the level of ICTs available at Nassarawa State University Library Keffi?
2. What is the level of the ICTs available and used in Nassarawa State University, Keffi?

Literature review

ICT has experienced many transformations during the last two decades. The concept of distance is demolished completely by the advancement of Information technologies. This has turned the whole globe into a small village. Libraries and information centres also have been influenced by the rapid advances in information technology (Oza & Mehta, 2018). The application of infrastructure in the library requires library personnel who are going to be operating them to possess a certain level of competency to be able to leverage the full potential, ICT tend to offer for the management of the information centre. It is quite obvious that ICT is pushing very hard on all aspects of human endeavour; education, commerce, health, judiciary, transportation as well as information science profession. This constant pressure calls for a redefinition and reshuffling of libraries’ daily activities and procedures in other to meet up with the changing technological trends and users’ behaviour (Okoroma, 2017). In general, infrastructure refers to the basic installations and facilities on which a community or state depends for its survival and growth (Babalola, 2013). To buttress this, ICT infrastructure such as computers, software, and network facilities among others serves as the community or state on which the library or information centre depends for the existence and provision of services for its clients or patrons, Choudhary and Sarmah (2017) opined that the rapid advancement of ICT has had a profound impact on all aspects of human activity and institutions, including libraries and information centres. ICT has brought revolutionary transformation in the functioning and management of libraries. Tiwari and Sahoo (2013) stated that the newly developed technology known as ICT has a significant impact on library operations, services, users, and staff. ICT, in broad terms, refers to all modern technical means used to store and handle information, as well as its communication via computer and related hardware, communication networks technology, and necessary software. ICT is critical for libraries to achieve their goals of information management, effective services, and boundary extension from the four walls to the globe.

Partap and Tiwari (2018) observed that now, the advent, rapid succession and subsequent widespread use of Information Technologies have completely revolutionized the library system and services. The twenty-first century is known as a knowledge society, which is possible due to the revolution in ICT. In the e-era, the world becomes a global village, and the gap between information generation and information users is minimized day by day. The Internet provides an ocean of information to society through various search engines, free and paid e-journals and e-books, open access institutional repositories, open courseware, open software, electronic theses and dissertations (ETD), etc. Subba and Das (2019) stated that the innovations in ICT have influenced libraries to serve better and adapt to the changes. With the use of ICT, there have been remarkable changes in libraries in terms of their daily operations and services. It has also helped to identify a new and active role for librarians. Kumar (2017) defined ICT tools as: communication technology such as emails, voicemail, telephone, fax, video conferencing, and internet; remote control technology which provides a platform to work with a remotely
located computer system to access all subscribed e-resources anytime and anywhere; and library security such as closed circuit television (CCTV), radio frequency identification (RFID), and quick response (QR) Code Technology. Shehu and Singh (2022) on the other hand revealed that university libraries are taking the initiative to automate their library operations, but are still lagging in terms of offering ICT based services, resources, and products, the Management, and staff of the libraries must realize the implication of not improving their services to meet up with the present ICT demand and essential that ICT Infrastructures are installed and training of the concerned staff on usage to improve the library services in the various university libraries.

According to Chisenga (2007) cited by Obotu, Chukwuka and Gambo (2017), the following are the various types of ICT found in academic libraries 1. Computers; 2. Internet; 3. Library worldwide wave; 4. Online catalogues and electronic data base; 5. E-mail communication; 6. Digital library. Perera and Chardra (2010) listed the following academic library resources in the ICT era: e-books; e-journals; e-theses; databases; e-groups; digital archives; library networks; library websites; Web OPACs; virtual conferences; virtual help desks; web exhibitions; bulletin boards; FAQs.

According to Gulavani (2021), commonly used ICT tools for different library operations are computers, scanners, digital cameras, Library software, CDs, DVD, pen drive, portable HDs, internet, intranet, barcode, RFID, biometrics, bibliographic listing and printing technology.

ICT facilities provide the library with facilities to manage the explosion of information generated by modern society (Anyim, 2021).

Patil (2018) noted that the key components of ICT which are needed in library are as follows: a) computer technology, b) communication technology, c) Reprographic, micrographic printing technology. According to Mani, Hameed and Thirumagal (2019), the bottom-line is that libraries save its users’ time hugely. The credit goes to technology. Across the board, libraries benefit their users to the core with the help of computers; library professionals can avoid repetition and duplication of their work and ensure a smooth running of the show in library service.

Igwebuike and Agbo (2017) stated that the future of library and information services is bound closely with the development of ICT, as many of its activities and services can be enhanced and many new services developed using suitable ICT in an appropriate way.

Agboola and Shaibu (2019) defined ICT as the application of computers and other technologies to the acquisition, organization, storage, retrieval and dissemination of information. ICT are described as the technologies that enable society to create, collect, consolidates, communicate, manage and process information in multimedia and various digital formats for different purpose i.e., computing and telecommunication technologies like the personal computer, CD-ROM, cable TV, cellular phones and the internet.

Idakwo, Shehu and Danwalba (2018) stated that ICTs are used to implement the management information systems (MIS), develop institutional repositories (IR) of digital local content, and carry out Selective Dissemination of Information (SDI) with Current Awareness Services (CAS) to her clients in digital libraries. Libraries are also
initiating ICT-based capacity building programmes for their circulation staff and information literacy programmes for library users. This is also being initiated to provide service in libraries.

The application of ICT to library services has generally been accepted by academic libraries as the most means of providing timely, accurate and efficient information services (Shuaibu, Mathias and Umar, 2019).

According to Abata-Ebire, Okesanya, Abiodun and Kusoro (2019), reference librarians in universities library should be very dynamic by embracing the trends of ICT by possessing quality information technology and information literacy skills in rendering mobile reference services to the library users. The information technology found in Nigerian university libraries today combines computer storage media and telecommunication. In other words, computer does the processing storage and retrieval of information, while telecommunication provides the data/information from work station to another library (Olubiyo, 2022). Deshpande (2017) says libraries are moving rapidly towards the electronic method of storage and retrieval. In the recent years, Internet has been the major force, which has led to the electronic versions of library amassments.

According to Tofi, Tarbo and Akile (2020) these technologies include; computers, internet, printer, scanner, photocopy machine, binding machine, laminating machine, broadcasting technologies (radio, public address speaker and television), projector and telephony among others, and are widely used in today’s education field most especially academic libraries. Adaeze (2020) opined that ICT also enables a new, simpler, and more efficient method of carrying out a variety of library operations. Traditional library services have thus been displaced by new proactive ICT services, and the efficiency and relevance of any library in the 21st century Nigeria is dependent on the effective delivery of qualitative service to users, as well as the recognition and careful adaptation of global initiatives in the provision of library and information services, such as the unfolding hitech information superhighway environment.

Technology has extended its effective arms to all four corners of the globe. In terms of library management, there have been numerous changes, such as users shifting to new technology-based library activities. It is natural for people to switch to these new technological supports in order to stay current. Libraries are implementing cutting-edge technology to manage various types of information, communication, and patron use. The newly developed technology known as ICT has a huge impact on circulation operations, services, users, and staff. Iyishu and Nkanu (2013) pointed out that the utilization of a library is a direct function of the available and accessible resources of a library. Users are only attracted to the library that the materials are current, adequate and congruent to solving their information needs. Therefore, the ICT available will enhance its use. Idhalama and Ifidon (2019) cited by Harazeem and Brisibe (2021) surveyed ICT use in libraries: a plus or minus to academic libraries in Nigeria. The study revealed that ICT has positive effects on Nigerian academic libraries as it stands as a major boost to academic libraries. The use of ICT has changed our conventional ways of learning and proposes the need to rethink education in terms of a more current context. ICT capability is fundamental to participation and
engagement in the modern information society. ICT can be used to find, develop, analyze and present information, as well as to model situations and solve problems (Ternenge, Tarbo & Washima, 2020). Subba and Das (2019) opine that the innovations in ICT have influenced libraries to serve better and adapt to the changes. With the use of ICT, there have been remarkable changes in libraries in terms of their daily operations and services. It has also helped to identify a new and active role for librarians. ICTs in academic libraries have become a more effective tool for the dissemination of information to scholarly communities in developing countries (Perera & Chandra, 2010).

According to UNESCO (2007) as cited by Singh, Krishna and Jaiswal (2014), “ICT” refers to forms of technology that are used to transmit, process, store, create, display, share or exchange information by electronic means. Haruna, Oni and Ado (2018) argued that reading in the 21st century academic libraries are no longer confined to reading print. The electronic version of many print materials has been made available on the World Wide Web. The ICT used in libraries are as follows: E-books, E question papers, E projects or dissertations, e-newspapers, e-magazines, and e-journals among others. The users prefer to browse and use the internet facilities for their information needs rather than visiting the traditional library for any information needs. The content of libraries is no more restricted to traditional printed resources such as books, magazines and journals, but online resources and other electronic-driven materials (Yebowaah & Plockey, 2017).

Baskara (2017) highlighted types of ICT used in the library as e-books, e-journals, Databases, CDs/DVDs, e-conference proceedings, e-reports, e-maps, e pictures/photographs, e-manuscripts, e-newspapers, internet/websites, Listservs, newsgroups, subject gateways, USENET, FAQs etc. electronic information resources consist of information resources provided in electronic formats such as the internet, CDROM databases, e-books e-journals, online databases, Online Public Access Catalogues, and other computer–based electronic networks (Bankole, Ajiboye & Otunla, 2015). Madu, Vandi and Chagwa (2018) argued that today, it is very obvious that, the use of ICT systems in all areas of human endeavour is now known and widely acceptable. In the library set up, ICT is used to manage one or several library routine services such as acquisition, serial control, cataloguing and classification and the online public access catalogue (OPAC). However, the rapid diffusion, adoption and integration of ICTs in the acquisition, processing, storage and retrieval, and dissemination of information in Nigerian university libraries within the past two decades has enhanced the provision of electronic information resources/services to library users through the development of electronic libraries. According to Nannim, Gokum and Uluwafeyikemi (2018), the craving for the internet stems from its central role in ICT with access to free online journals, magazines and other information resources anytime and anywhere for academic research. Nigerian Universities, Polytechnics, Colleges of Education and other Tertiary institutions’ undergraduates find the internet very useful for assignments, and research, including their final year project, being an encyclopedia of information and facts.

The following are ICTs/e-resources used in the academic library:
i. **E-journal:** An e-journal is a very important part of every library collection. Electronic journals (e-journals) are scholarly journals or intellectual magazines that can be accessed via electronic transmission. Some journals are "born digital," in that they are only published on the web and in digital format; however, most electronic journals began as print journals that later evolved to include an electronic version while still maintaining a print component.

ii. **E-books:** This refers to Adobe PDF, Microsoft Reader, eReader, Mobipocket Reader, EPUB, Kindle, and iPad. According to Omobekijimi, Eghworo and Ogo (2015), libraries now provide access to a variety of electronic books, as well as other printed works (such as essays, poems, or historical documents). Some of these electronic books and texts are part of large, searchable databases. According to Modona, Sithole and Christa (2017), the integration of e-books in academic libraries is beneficial as they are remotely accessible and available around the clock. Furthermore, e-resources enable academic libraries to benefit from shared storage and easier integration into Virtual Learning Environments (VLEs).

iii. **E-newspapers:** is also known as online newspaper or web newspaper. It exists on the World Wide Web or the internet.

iv. **E-theses:** Electronic theses and dissertations, or ETDs, are those that are submitted, archived, or accessed primarily through electronic means. According to Lippincott and Lynch (2010) cited by Rasuli, Solaimani, and Alipour-Hafezi (2019), electronic Theses and Dissertations (ETDs) are one of the relatively new channels and was launched in the early '90s to facilitate access to students’ theses and dissertations.

**Methods**

This study adopted a descriptive survey research design. The area of the study is Nassarawa State University, Keffi Library. Fifty two copies of questionnaire were distributed and forty two were returned and used for the study. The population is 42 comprising library staff which includes both professionals and Paraprofessionals. No sampling was done considering the small size of the study population. Data collected were analyzed using frequency counts and percentages.

**Findings**

The findings from the data collected are presented in this section.

Table 1 shows that 47.6% of the respondents are males while 33.3% are females. The remaining 19.0% did not indicate their sex. From this indication, it shows that males are more than females in Nassarawa State University (NSUK) Library.

Table 2 shows that the paraprofessional library staff in NSUK library are more than the professional staff with 54.8% paraprofessionals and 45.2% professionals.
Research question one: What is the level of ICTs available at Nassarawa State University, Keffi?

This question is answered with the data in Table 3.

Table 3 shows all the highest numbers indicated by the respondents and all their responses to the level of availability of the ICT in the NSUK library. 54.8% of the respondents said laptops are available in the NSUK library, 50% said desktop is available, 61.9% said scanner is available, 50% said printer are available, 57.1% said the internet is available, 40.5% said tablet is available, while 45.2% said it is moderately available, 54.8% which is the highest said digital camera is available, 50% said OPAC is available, another 50% said e-databases are available, while 40.5% said DVD is moderately available. Another 47.6% said CD-ROM is moderately available and 42.9% said digital repository is moderately available in the NSUK library. All the indicator shows that the NSUK library has some level of ICT available in the library. Harazeem and Brisibe (2021) supported this by saying through the communication, and facilities that come with ICTs, the library has been able to come up with better ways to enhance communication between clients and librarians. According to them the presence of ICT facilities in the reference section has reduced the number of library users who visit to ask questions at the reference desk.

Research question two: What is the level of the available ICTs used in Nassarawa State University, Keffi?

This question is answered with the data in Table 4.
### Table 3: ICTs available in the NSUK Library

<table>
<thead>
<tr>
<th>ICT Available</th>
<th>Highly Available</th>
<th>Available</th>
<th>Moderately Available</th>
<th>Not Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laptop</td>
<td>10 (23.8%)</td>
<td>23 (54.8%)</td>
<td>7 (16.7%)</td>
<td>2 (4.8%)</td>
</tr>
<tr>
<td>Desktop</td>
<td>14 (33.3%)</td>
<td>21 (50%)</td>
<td>7 (16.7%)</td>
<td>-</td>
</tr>
<tr>
<td>Scanner</td>
<td>7 (16.7%)</td>
<td>26 (61.9%)</td>
<td>9 (21.4%)</td>
<td>-</td>
</tr>
<tr>
<td>Printer</td>
<td>9 (21.4%)</td>
<td>21 (50%)</td>
<td>12 (28.6%)</td>
<td>-</td>
</tr>
<tr>
<td>Internet</td>
<td>11 (26.2%)</td>
<td>24 (57.1%)</td>
<td>7 (16.7%)</td>
<td>-</td>
</tr>
<tr>
<td>Tablet</td>
<td>3 (7.1)</td>
<td>17 (40.5%)</td>
<td>19 (45.2%)</td>
<td>3 (7.1%)</td>
</tr>
<tr>
<td>Digital camera</td>
<td>-</td>
<td>23 (54.8%)</td>
<td>15 (35.7%)</td>
<td>4 (9.5%)</td>
</tr>
<tr>
<td>OPAC</td>
<td>12 (28.6%)</td>
<td>21 (50%)</td>
<td>7 (16.7%)</td>
<td>2 (4.8%)</td>
</tr>
<tr>
<td>e-databases</td>
<td>12 (28.6%)</td>
<td>21 (50%)</td>
<td>7 (16.7%)</td>
<td>2 (4.8%)</td>
</tr>
<tr>
<td>DVD</td>
<td>6 (14.3%)</td>
<td>14 (33.3%)</td>
<td>17 (40.5%)</td>
<td>5 (11.9%)</td>
</tr>
<tr>
<td>CD-ROM</td>
<td>8 (19.0%)</td>
<td>11 (26.2%)</td>
<td>20 (47.6%)</td>
<td>3 (7.1%)</td>
</tr>
<tr>
<td>Digital repository</td>
<td>10 (23.8%)</td>
<td>14 (33.3%)</td>
<td>18 (42.9%)</td>
<td>-</td>
</tr>
</tbody>
</table>

### Table 4: ICTs Used in NSUK Library

<table>
<thead>
<tr>
<th>ICT Use</th>
<th>Highly Used</th>
<th>Used</th>
<th>Moderately Used</th>
<th>Not Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laptop</td>
<td>11 (26.2%)</td>
<td>24 (57.1%)</td>
<td>7 (16.7%)</td>
<td>-</td>
</tr>
<tr>
<td>Desktop</td>
<td>13 (31.0%)</td>
<td>22 (52.4%)</td>
<td>7 (16.7%)</td>
<td>-</td>
</tr>
<tr>
<td>Scanner</td>
<td>6 (14.3%)</td>
<td>25 (59.5%)</td>
<td>11 (26.2%)</td>
<td>-</td>
</tr>
<tr>
<td>Printer</td>
<td>7 (16.7%)</td>
<td>22 (52.4%)</td>
<td>13 (31.0%)</td>
<td>-</td>
</tr>
<tr>
<td>Internet</td>
<td>13 (31.0%)</td>
<td>14 (33.3%)</td>
<td>15 (35.7%)</td>
<td>-</td>
</tr>
<tr>
<td>Tablet</td>
<td>4 (9.5%)</td>
<td>14 (33.3%)</td>
<td>12 (28.6%)</td>
<td>12 (28.6%)</td>
</tr>
<tr>
<td>Digital camera</td>
<td>6 (14.3%)</td>
<td>12 (28.6%)</td>
<td>11 (26.2%)</td>
<td>13 (31.0%)</td>
</tr>
<tr>
<td>OPAC</td>
<td>8 (19.0%)</td>
<td>13 (31.0%)</td>
<td>10 (23.8%)</td>
<td>11 (26.2%)</td>
</tr>
<tr>
<td>e-databases</td>
<td>5 (11.9%)</td>
<td>17 (40.5%)</td>
<td>6 (14.3%)</td>
<td>14 (33.3%)</td>
</tr>
<tr>
<td>DVD</td>
<td>1 (2.4%)</td>
<td>14 (33.3%)</td>
<td>15 (35.7%)</td>
<td>12 (28.6%)</td>
</tr>
<tr>
<td>CD-ROM</td>
<td>14 (33.3%)</td>
<td>12 (28.6%)</td>
<td>10 (23.8%)</td>
<td>6 (14.3%)</td>
</tr>
<tr>
<td>Projector/Smartboard for instruction</td>
<td>-</td>
<td>22 (52.4%)</td>
<td>20 (47.6%)</td>
<td>-</td>
</tr>
</tbody>
</table>
Table 4 shows that the available ICT is used by the library personnel in the provision of service as follows: 57.1% which is the highest said that laptops are being used, 52.4 said the desktop is being used, 59.5% said the scanner are being used, 52.4% said printer is being used. On the other hand, 35.7% which is the highest said internet are moderately used, 33.3% said tablet is being used, 31% said digital camera are not used in providing services to the user, another 31% said OPAC are being used, 40.5% said e-databases are being used, 35.7% said DVD is moderately used, 33.3 % said CD-ROM are highly used and 52.4% said projector /smartboard are being used. From all indications, it shows that the available ICT infrastructure is used notwithstanding the level of their usage. This is in agreement with Udofia (2019) as cited by Owushi and Mundi (2021) that a modern library must provide online access to information resources since it is ascertained that ICT is the largest reservoir of all type’s information and without functional means of access to information stored will be a colossal waste.

**Conclusion**

Based on the findings of the study, it is concluded that the NSUK library has both male and female staff and the male staff are more than female. The study shows that the paraprofessional staff are more than the professional staff. As regards the ICT, the study also shows that ICT is available in the NSUK library and is put to use by the library personnel in the provision of services to users of the library. The study concludes that emphasis should be made so that library personnel should improve their usage of ICT available in order to provide effective service to library users.

Based on the findings and their implications the following recommendations were made.

1. The State Government should provide adequate funds for the procurement of ICT infrastructure for the NSUK library to enhance the provision of services. This could be carried out in form of the government library intervention fund.

2. The NSUK university management should engage the library personnel in continuous ICT training through organized seminars, workshops and symposia in order to enhance their proficiency in ICT.

3. In house ICT training and knowledge sharing by experienced colleagues in the profession is also required for the development of the entire library personnel.

4. It is one thing to automate library operations and another thing to maintain them. Therefore, the NSUK library management and library personnel should develop a maintenance culture to retain the value of the procured ICT infrastructure.

5. The conventional library personnel should also be closely encouraged on how to use ICTs in services operation to avoid misuse of those facilities.

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