



## Perceived Impacts of ICT on Knowledge Sharing by Academics of Federal School of Surveying, Oyo

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### Abstract

**Purpose:** This study examines the perceived impacts of ICT on knowledge sharing by academics at the Federal School of Surveying, Oyo.

**Method:** The descriptive survey design was adopted. However, the population of this study includes academics in the Federal School of Surveying, Oyo State. There are fifty-three (53) academics in the Federal School of Surveying. A simple random sampling technique was adopted to give all the respondents an equal chance of being selected for this study. A web-based questionnaire was designed using Google form and generated link was shared with academics in the Institutions. The link was shared on various groups of institutions via WhatsApp and Telegram groups. The questionnaire link was shared and responses were collected for two weeks.

**Findings:** The study found that skills such as internet accessing skills, word processing skills, email sending skills, presentation skills, and database searching skills are required for knowledge sharing. Poor electricity, slow internet network, and lackadaisical attitude toward information managers are identified as challenges that influence the use of ICT in sharing of knowledge among academics in the Federal School of Surveying, Oyo state.

**Conclusion:** The study recommends that Orientation, workshops, and training should be provided to academics of Federal School on the need to share knowledge. ©authors

**Keywords:** Perceived Impacts, ICT, Knowledge Sharing, Federal School of Surveying, Oyo.

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### 1. Introduction

The 21 Century has been heralded by ICT. This has played a prominent role in information sharing. However, Information and Communication Technology (ICT) is sometimes used as

Information Technology (IT). ICT refers to the technology which provides access to information through telecommunications (Seena & Pillai 2014). ICT is described as an electronic device used for processing and managing information through



software and hardware to store, convert, protect, manipulate, manage, transmit, control, disseminate and retrieve information for the improvement, enhancement, and productivity of personal, organizational, and institutional activities (Osakwe, 2012). Hence, it is expected that librarians acquire ongoing knowledge of ICT skills for sharing knowledge and provision better service delivery (Umeji, Ejedafiru & Ogheneteha 2013). Therefore, the emergence and acceptance of ICTs in libraries and information centers have improved knowledge-sharing activities and service delivery in higher institution libraries, particularly in developed countries (Virtanen & Neiminen, 2002).

However, the adoption of ICT has revolutionized service provision in libraries, and general information management systems that have led to the transformation in the way the knowledge is managed for sharing (Akanbi, Ogunleye & Sulaiman 2020). Knowledge sharing manifest in diverse ways such as the lecturer to the students, the teacher to the pupils, the master to the apprentice, the parents to the children, the presenter to the audience, and the superior to the subordinate. Nnadozie (2016) defined knowledge as a basic component of people's intellectual assets. Anna and Puspitasari (2013) affirmed that the adoption of ICT for knowledge sharing among information professionals including librarians has improved significantly in recent times. Therefore, it is necessary for librarians in high institution libraries to adopt and embrace ICT as well as inculcate requisite ICT skills that will foster knowledge sharing and enhance library routines to push beyond the physical wall of the library which is made up of skills, experiences, ideas, intellect, expertise, and intuition, which become evident when the value has been added to information through processing (Enakrire & Ocholla 2017).

Ahmed and Rana (2011) noted that information and communication can be helpful tools for effective knowledge sharing and can facilitate knowledge sharing in both time and space dimensions. It, therefore, implies that knowledge sharing among academics can be strengthened with the application of ICT and it makes sharing of knowledge an enjoyable activity by breaking the barrier of time, and distance, irrespective of the location of the undergraduates that are willing to share their knowledge. Thus, it is, even more, pronounced as information and communication technologies support, accelerate and improve the sharing of information among firms and individuals and change the way people learn and network.

However, Junjun, Yong, and Yonggang (2008) averred that knowledge sharing is an organized process that involves the application of various

modes of communication to distribute knowledge among a group of people who are members of the same profession taking cognizance of the appropriate time, place and form. This implies that for knowledge sharing to take place among academics, there must be a conscious effort, plans, and intentions backed up with the willingness to do so. Knowledge sharing does not happen by proxy but it is a carefully planned event and as such must be influenced by certain factor(s). Knowledge sharing is one method for making sure that knowledge is available and delivered at the right time to the right set of academics through information technology. Against this background, this study examines the perceived impacts of ICT on knowledge sharing by academics of the Federal school of surveying, Oyo.

### *1.1 Statement of the Problem*

Over time, ICTs are perceived to be seen as a tool that influences knowledge sharing in an academic environment. Knowledge sharing is an interactive practice of disseminating veracious knowledge, to the right people at the right time, in an intelligible way that allows them to act prudently and enrich the institution's knowledge base. However, skills required by academics to manipulate knowledge sharing in higher institutions are perceived to be inadequate in Nigeria. A higher institution in the country requires knowledge sharing activities as an important source of practice which is supported by the use of ICT. This is because ICT can reduce barriers in knowledge sharing activities and it also could save time when engaging in knowledge sharing but poor skills of ICT by academics make knowledge sharing difficult (Casimir, Ng & Cheng, 2012).

Past researchers agreed that ICT is one of the factors that influence knowledge sharing activities among a group of people of the same profession or field of study and it also facilitates knowledge sharing across geographical boundaries. Mohd and Zawiyah, (2015) observed that knowledge sharing activities using ICT can increase the rate of knowledge sharing among educators in educational institutions. Against, this background, this study examines the perceived impacts of ICT on knowledge sharing by academics of the Federal school of surveying, Oyo.

### *1.2. Objectives of the Study*

The main objective of this study is to examine the perceived impacts of ICT on knowledge sharing by academics of the Federal school of surveying, Oyo. Specific objectives are to:



1. Identifying ICT skills required by academics of the Federal School of Surveying for knowledge sharing,

2. Ascertaining the perceived impact of ICT on knowledge sharing among academics in the Federal School of Surveying and

3. Identifying ICTs challenges that influence sharing knowledge among academics of Federal School of Surveying, Oyo

## 2. Literature Review

### 2.1. ICT Skills require for Knowledge Sharing

In sharing knowledge among academics, ICT skills are needed for effective communication among staff of higher intuitions. Hence, ICT skill is a basis for use of knowledge sharing in academics. However, ICT skills include internet accessing skills, word processing skills, email sending skills, presentation skills, and database searching skills (Amua-Sekyi & Asare, 2016). It is perceived that the above-listed skills are prerequisites to knowledge sharing in academics. Kaewchur and Phusavat (2013) investigated the role of knowledge sharing in IT and Innovation. The study used a descriptive survey. It is found that management and technological skills, problem-solving skills, discussion, and negotiation are required skills for knowledge sharing among employees. Majid et al. (2011) affirmed that communication skills, social skills, presentation skills, and thinking and reasoning skills are major skills needed for knowledge sharing among students.

It also identified online collaboration, email management competency, online research skills, desktop publishing, word processing skills, social media management, data management skills, and retrieval skills (Doyle, 2019). However, these skills are not only vital to service delivery but also contribute greatly to the advancement of human society (Onuoha, Akidi & Chukwueke, 2019). Omechia, Okwu, and Nsirim (2021) noted that librarians require ICT skills to be effective in the application of ICT to services delivery which is why it is important to prepare a new generation of librarians to effectively use the emerging technologies in knowledge sharing. Ademodi and Adepoju (2019) examined the possession of computer skills and competencies in the use of computers in Nigeria. The population includes librarians in the selected library in Lagos. The data were analyzed using frequency count and simple percentages. The results indicated that the majority of librarians were not able to navigate and explore the internet in knowledge sharing.

Onuoha, Akidi & Chukwueke (2019) examined the effects of ICT skills in knowledge sharing by Library and Information Science (LIS) educators at Michael Okpara University of Agriculture, Umudike. The study adopted the descriptive survey design and a complete census technique was adopted, data obtained were analyzed using frequency counts and mean scores. Results of the study indicated that the acquisition of some ICT skills such as web2.0 skills, and information retrieval skills, among others, are used for knowledge sharing.

### 1.2. Perceived Impact of ICT on Knowledge Sharing among Academics

Information and Communication Technology in higher institutions is germane to knowledge sharing, especially among academics. However, Ahmed and Rana (2011) noted that Information and Communication Technology can be a helpful tool for effective knowledge sharing and can facilitate knowledge sharing in both time and space dimensions. It, therefore, implies that knowledge sharing can be strengthened with the application of ICT and it makes sharing of knowledge an enjoyable activity by breaking the barrier of time, and distance and irrespective of the location of the undergraduates that are willing to share their knowledge. Thus, it is, even more, pronounced as information and communication technologies support, accelerate and improve the sharing of information among firms and individuals and change the way people learn and network.

Furthermore, Lawrence, (2019) posited that the need for knowledge generated to be freely shared among a group of persons who are commonly bound to one profession cannot be over-emphasized especially in a learning environment such as the university. From preliminary observation, experience, and empirical literature consulted by the researcher, it was discovered that there exists a constant reduction in the knowledge sharing intention by undergraduates despite the usefulness of knowledge sharing among undergraduates and the entire institution of learning. Rahoo (2021) examined the impact of ICT skills on knowledge sharing among library professionals of Higher Education Institutions of Pakistan. Librarians in higher education institutions in Pakistan form the population. The study used a descriptive survey design. The study found that the absence or low possession of ICT skills such as software manipulation and use skills, videoconference skills, and Website teaching skills influence knowledge sharing among librarians in higher education.



### 1.3. ICTs Challenges that Influence Sharing Knowledge among Academics

As ICTs are related to knowledge sharing among academics, some predicaments influence knowledge sharing in higher institutions. Ajegbelen (2016) posited that inadequate technology infrastructure, lack or inadequate power supply and unsteady internet access, lack of training, found, skilled and experienced lecturers in multimedia creation and knowledge of video creation tools as well as lack of support from curriculum decision-makers can create big barriers knowledge sharing. Akanbi, Ogunleye, and Sulaiman (2020) examined the application of ICT in the dissemination of information in selected special libraries in Ilorin Metropolis, Kwara State, Nigeria. Three Special libraries from the metropolis of the state comprised the sample population of the study; Central Bank of Nigeria Library, Michael Imoudu Institute of Labor Studies Library, and Ghalib Chamber Library. Data collected from the field were analyzed using the descriptive method of analysis. The result of the study indicated that poor electricity, slow internet connection, insufficient, poor library settings, lackadaisical attitude, high workload, and poor information retrieval skills are challenges associated with the application of ICT.

Sentlowitz (2009) posited that inadequate technology infrastructure, lack or inadequate power supply and unsteady internet access, and lack of training, funds, and skilled and experienced lecturers, as factors inhibiting the acquisition of ICT skills for knowledge sharing. Rahoo (2021) investigated the Impact of ICT Skills on Knowledge Sharing among Library professionals at Higher Education Institutions in Pakistan.

The results indicated that the high cost of acquiring the training, the high cost of the ICT gadgets, the state of the environment where these gadgets could be deployed for use, and the knowledge and reception of the users of this knowledge; if ICTs used for the transmission of knowledge are the ICT challenges that influence knowledge sharing in higher education institutions of Pakistan.

## 2. Method

This study examines the perceived impacts of ICT on knowledge sharing by academics at the Federal School of Surveying, Oyo. The descriptive survey design was adopted to describe events and opinions about the situation. However, the population of this study includes academics in the Federal School of Surveying, Oyo State. There are fifty-three (53) academics in the Federal School of

Surveying. A simple random sampling technique was adopted to give all the respondents an equal chance of being selected for this study. A web-based questionnaire was designed using Google form and generated link was shared with academics in the Institutions. The link was shared on various groups of institutions via WhatsApp and Telegram groups. The questionnaire link was shared and responses were collected for two weeks. The frequency table and percentage were used to analyze the collected data.

## 3. Findings and Analysis

This section presents the results of the data obtained for the study. The results were presented based on the variables focused on the objectives. Of the fifty-three (53) respondents, only fourth nine (49) respondents were found useable for the study as presented below.

Table1. Demographics of Respondents

Demographic	Frequency	Percentage
<b>Gender</b>		
Male	36	73.5
Female	13	26.5
<b>Total</b>	<b>49</b>	<b>100</b>
<b>Age</b>		
21-30	15	30.6
31-40	27	55.1
41 years and above	07	14.3
<b>Total</b>	<b>49</b>	<b>100</b>
<b>Working Experience</b>		
1-5 years	27	55.1
6-10 years	12	24.5
11 years and above	10	20.4
<b>Total</b>	<b>49</b>	<b>100</b>

Table 1 shows responses to the demographic variables. It shows that 36 (73.5%) of respondents are male while 13 (26.5%) of respondents are female. This shows that the majority of respondents are male. It also shows that 15 (30.6%) of respondents are between 21-30 years of age while 27(55.1%) of respondents are between 31-40 years of age and 7(14.3%) of respondents are 41 years and above. It is deduced that more than half of respondents is between 31-40 years of age. Table 1 also shows that 27 (55.1%) of respondents have 1-5 years of working experience while 12 (24.5%) of



respondents have 6-10 years of working experience and 10 (20.4%) of respondents have 11 years and above working experience. This implies that the majority of respondents have 1-5 years of working experience in the Federal School of Surveying, Oyo.

#### 4.1. Analysis of Research Question

*Q1: What are ICT skills required by academics of the Federal School of Surveying for knowledge sharing?*

Table 2: ICT skills required by Academics of Federal School of Surveying for Knowledge

Items	SA	S	D	SD
Internet accessing skills	25 (51.0%)	13 (26.5%)	8 (16.3%)	3 (6.1%)
Word processing skills	17 (34.7%)	20 (40.8%)	10 (20.4%)	2 (4.1%)
Email sending skills	34 (69.4%)	10 (20.4%)	3 (6.1%)	2 (4.1%)
Presentation skills	16 (32.7%)	27 (55.1%)	5 (10.2%)	1 (2.0%)
Database searching skills	20 (40.8%)	19 (38.8%)	4 (8.1%)	6 (12.2%)

Table 2 shows the responses to the ICT skills require by academics of the federal school of surveying. The table indicates that 38 (77.5%) agreed with internet accessing skills while 11(12.5%) disagreed. It is also shown in the table that 37 (75.5%) agreed with word processing skills while 12 (14.5%) disagreed. Furthermore, the table shows that 44 (89.8%) agreed with email sending skills while 5(10.2%) disagreed. Table 2 also indicates that 43 (87.8%) agreed with presentation skills while 6 (12.2%) disagreed. Finally, 39 (79.6%) agreed with database searching skills while 10(20.3%) disagreed. The implication of this table to the study is that majority of academics require internet accessing skills, word processing skills, email sending skills, presentation skills, and database searching skills for sharing knowledge in the Federal School of Surveying, Oyo.

*Q 2: What are the perceived impacts of ICT on knowledge sharing among academics in the Federal School of Surveying?*

Table 3: Perceived impact of ICT on knowledge sharing among academics in the Federal School of Surveying

Items	SA	S	D	SD
It change the way people learn and network	18 (36.7.0%)	17 (34.7%)	2 (4.1%)	12 (24.5%)
It is helpful tool for effective knowledge sharing	26 (53.0%)	7 (14.3%)	16 (32.7%)	-
It helps in accelerating and improve information sharing	14 (28.6%)	28 (57.1%)	6 (12.2%)	1 (2.0%)
It make sharing of knowledge an enjoyable activities	10 (20.4%)	21 (42.9%)	3 (6.1%)	15 (30.6%)

Table 3 shows responses to the perceived impact of ICT on knowledge sharing among academics in the Federal School of Surveying. It emanates that 35 (71.4%) agreed that ICT changes the way people learn and network while 14(28.6%) disagreed. it is also shown that 34(67.3%) agreed that it is a helpful tool for effective knowledge sharing while 16(32.7%) disagreed. Furthermore, table 3 also indicates that 42(85.7%) agreed that it helps in accelerating and improving information sharing while 7(4.2%) disagreed. Conclusively, 31(63.3%) agreed that it makes sharing of knowledge enjoyable activities while 18(36.7%) disagreed. However, the implication of this table to the study is that the highest number of respondents agreeable that ICT changes the way people learn and network, a helpful tool for effective knowledge sharing, helps in accelerating and improving information sharing and it makes sharing of knowledge enjoyable activities as perceived impact of ICT on knowledge sharing.

*Q 3: How do ICTs challenges influence sharing of knowledge among academics of the Federal School of Surveying?*

Table 4: ICTs challenges that influence sharing of knowledge among academics of the Federal School of Surveying

Items	SA	S	D	SD
Poor electricity supply	26 (53.1%)	7 (14.3%)	13 (26.5%)	3 (6.1%)
Slow internet connection	17 (34.7%)	19 (38.8%)	8 (16.2%)	5 (10.2%)
Poor library settings	24 (49.0%)	8 (16.2%)	11 (22.4%)	6 (12.2%)
Poor information retrieval skill	12 (24.5%)	19 (38.8%)	12 (24.5%)	6 (12.2%)

Table 4 indicates responses to ICTs challenges that influence sharing of knowledge among



academics of the Federal School of Surveying. This table shows that 33(67.4%) agreed with poor electricity while 16(32.6%) disagreed. It also shows that 36(73.5%) agreed with slow internet connection while 13(26.5%) disagreed. Moreover, the table also shows that 32(65.2%) agreed with poor library settings while 17(34.8%) disagreed. Table 4 also shows that 31(63.3%) agreed with poor information retrieval skills as an ICT challenge that influences sharing of knowledge among academics in the federal school of surveying. The implication of this table to the study is that the highest number of academics is of opinion that poor electricity supply, slow internet connection, poor library settings, and poor information retrieval skills are ICTs challenges that influence knowledge sharing among academics of the federal school of surveying, Oyo state.

#### 4. Discussion

On the ICT skills required for sharing knowledge, the study found out that an overwhelming number of academics used internet accessing skills, word processing skills, email sending skills, presentation skills, and database searching skills for sharing knowledge in the Federal School of Surveying, Oyo. The finding by Onuoha, Akidi, and Chukwueke 2019 oppose the finding of this study by identifying web 2.0 skills, and information retrieval skills as skills needed for knowledge sharing

The study also found that ICT changes the way people learn and network, a helpful tool for effective knowledge sharing helps in accelerating and improving information sharing and makes sharing of knowledge enjoyable activities as perceived impact of ICT on knowledge sharing. This finding is supported by Rahoo (2021) that videoconference skills and Website teaching skills influence knowledge sharing among librarians in higher education.

It is also found that poor electricity supply, slow internet connection, poor library settings, and poor information retrieval skills are ICTs challenges that influence knowledge sharing among academics in the federal school of surveying, Oyo state. The finding of this study is in line with Sentlowitz (2009) who posited that inadequate technology infrastructure, lack or inadequate power supply and unsteady internet access, lack of training, funds, and skilled and experienced lecturers, as factors inhibiting the acquisition of ICT skills for knowledge sharing.

#### 5. Conclusion

The study aimed as examines the perceived impacts of ICT on knowledge sharing by academics of the federal school of surveying, Oyo.

However, it is established in the study that ICTs is a skill that requires in all fields of knowledge, especially in the area related to knowledge sharing among academics in higher institutions of learning. The study concludes that skills such as internet accessing skills, word processing skills, email sending skills, presentation skills, and database searching skills are required for knowledge sharing. Though, poor electricity, slow internet network, and lackadaisical attitude of information managers are identified as challenges that influence the use of ICT in sharing of knowledge among academics in Federal School of Surveying, Oyo state.

Based on the findings above, the following recommendations are provided:

1. Orientation, workshop, and training should be provided to academics of Federal School on the need to share knowledge.
2. It is also recommended that Federal School of Surveying management should provide needed skills to academics for sharing of knowledge
3. It also recommends that alternative poor supply should be provided.

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