

Influence of ICT Skills on Librarians' Participation in Virtual Meetings for Professional Development

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ABSTRACT

Objective: This study investigated the influence of ICT skills on librarians' participation in virtual meetings for professional development.

Methods: The quantitative study employed descriptive survey research design. Total enumeration sampling technique was used to capture the entire 158 librarians in 12 public universities in South-south, Nigeria. Both descriptive and inferential statistics were used to analyse the data through the questionnaire.

Results: It was found that majority of the librarians possessed the required ICT skills for participating in virtual meetings for professional development despite the fact that the frequency of librarians' participation in virtual meetings in various areas was low. The librarians derived a lot of benefits from participating in virtual for professional development, even though some challenges are encountered.

Conclusion: It was recommended that the librarians should enhance their ICT skills through regular ICT training and computer practice and should regularly participate in virtual meetings to be conversant with the contemporary developments in their profession.

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Introduction

The necessity for librarians to ameliorate their professional development is becoming persistently increasing in the contemporary age of information and communication technology (ICT). This is because for librarians to remain relevant as the influx of ICT is transforming the mode of delivering library services, librarians have to prove their relevance in their chosen profession by employing ICT in participating in virtual meetings. The participation of librarians in virtual meetings for professional development is inevitable as issues affecting the libraries and librarians must be reflected upon so that crucial steps can be taken. Invest in professional development is a necessity in the contemporary changing library environment so that librarians as managers of information can effectively manage the libraries (Li, 2009). This reveals the need for librarians to persistently improve themselves through various professional development programmes (Varalakshmi, 2007).

Librarians in the current age in which digital technologies are employed for virtual meetings have greatly enriched their intellectual capability concerning their career path (Adekoya, 2018; Susan, 2011). More so that COVID-19 has taught people all over the world to transit to online environment in the conduct of meetings, reputable online platforms which include Skype, Zoom, Google Hangouts, Microsoft Teams, Slack, etc. are now employed for online meetings (Kristóf, 2020). Participating in meetings has enhanced the professional development of librarians in no small measure. Li (2009) claimed that all aspects of library operations and practice have been saturated by technologies. This necessitates librarians to be dynamic in adjusting and embracing new technologies for meetings through which crucial matters affecting to their profession are discussed.

The necessity for librarians to possess appropriate ICT skills for participating in virtual meetings is increasing in the modern days. Skype and Zoom are habitually employed by librarians for virtual meetings (Kaltimani & Naik, 2013). The use of ICT for meetings requires that librarians have to possess ICT skills (Ayoku & Okafor, 2015). It is very pivotal, therefore, to know the extent of ICT skills the librarians possess and how frequently the librarians participate in virtual meetings for professional development in different areas. The focus of this study is therefore to investigate the influence of ICT skills on participation in virtual meetings for professional development among librarians in university libraries.

Objectives of the Study

The objectives of the study are to:

1. determine the ICT skills required by librarians to participate in virtual meetings for professional development in university libraries in South-South, Nigeria;
2. find out the frequency of librarians' participation in virtual meetings for professional development in various areas;

3. find out the benefits librarians derive from participating in virtual meetings for professional development; and
4. investigate the challenges librarians confront in participating in virtual meetings for professional development.

Literature Review

ICT Skills and Participation in Virtual Meetings by Librarians

The challenges posed by the COVID-19 have led to the proliferation of virtual platforms for meeting among librarians. These require librarians to have the necessary ICT skills to participate in virtual meetings. Zoom and Skype are among the major online tools used for virtual meetings in the contemporary era. The possession of ICT skills has really helped librarians in participating in virtual meetings (Kaltimani & Naik, 2013). The ICT skills are combination of proficiencies, abilities and expertise connected to library technologies (Batool & Ameen, 2010). The professional development and proficiency of librarians as well as the progress of the libraries depend to a vast extent on possession of ICT skills. As such, the onus is on librarians to equip themselves with the necessary ICT to participate in Zoom meeting (Ayoku & Okafor, 2015). The skills will enable librarians to use microcomputer applications, mainframe computer applications, CD-ROM products, computer languages or programming, computer hardware, networks such as LAN or WAN, Internet searching, resources in electronic formats and image technology and multimedia skills (Mathews & Pardue, 2009).

The growing level librarians acquire and use ICT skills for participating in virtual meetings has made meetings for professional discussion of issues bothering library practice easy these days (Spinuzzi, 2006). Kaltimani and Naik (2013) affirmed that the use of computer skills, information literacy skills and communication skill make it easy for librarians to participate in Zoom meetings for professional development. A study by Ademodi and Adepoju (2009) found that the level of computer skills and competences that librarians in some universities in Nigeria possessed is low, and this will not enable them to effectively participate in virtual meetings. Equally, a study by Adeyoyin (2006) on the level of ICT literacy skills among the staff of English-speaking university libraries and their counterparts in French-speaking university libraries found that less than 50% of the librarians possessed the ICT skills for virtual meetings. Assessment of the computer literacy skills of librarians in Isfahan University by Safahieh and Asemi (2008) also showed that most of the librarians possess the required computer literacy skills to participate in virtual meetings.

In the last few years, there has been a persistent rise in librarians' participation in virtual meetings. The manners meetings are conducted in the modern age differ very greatly from that of the beginning of the 21st century. Even the advent of the COVID-19 required experts across the

world to conduct virtual meetings to discuss topics of imminent concern. Librarians cannot be docile in the face of this progressive move. Health information has to be disseminated and health information resources have to be provided to the appropriate health personnel and agencies (Featherstone et al. 2012). In an investigation of academic libraries' responses to the COVID-19 pandemic in Nigeria, Fasae, Adekoya and Adegbilero-Iwari (2020) librarians helped in spreading information on social-distancing measures recommended by health organizations via social media during the COVID-19 period.

Edet and Obi (2021) claimed that the frequency of librarians' participation in virtual meetings through which their professional development would be enhance is high. This reflects the degrees librarians employed the diverse virtual platforms such as Skype and Zoom to conduct virtual meetings through they are educated and prepared for the transformations ahead of them in their libraries. The participation of librarians in online meetings is in the regions of getting new instruments for teaching in virtual environment. Bhojwani (2020) posited that some librarians participated in virtual meetings to know about novel tools like Google Classroom and discover methods to generate or connect with virtual library tools to make digital collections to get to users.

Benefits of Participating in Virtual Meetings

Technologies and innovations have permeated into every profession, and librarians are exploiting the potential of disruptive innovations to enhance the performance of library operations (Adekoya & Adedimeji, 2021). A study by Anene and Idiedo (2021) on participation of librarians in professional advancement conferences using virtual tools in Nigeria found that factors such as saving money, the free nature of workshops, reduction of travel risk, and prospect were the benefits of participating in virtual conferences. Richards (2014) recognized cost effectiveness, utility of time, and the ability to choose the desired format as the benefits librarians derive from engaging in virtual meetings. Using an ethnographic technique of investigating the feeling of librarians about their computer-human experience, Wasson (2016) found that some of the librarians loved the ability to multitask.

If virtual meeting platforms are set up properly, meetings will be totally safe with respect to privacy (Vinayak, 2020). Constructive qualities of virtual meeting tools include the ability to expeditiously solve problems, assist in lessening social segregation. The benefits of virtual meetings identified by Wan Hassan et al. (2020) include cost savings due to reduced travel costs and travel time, participants' information never depends on locations, easy management, and automatic registration of participants through virtual or online software. Virtual meetings can reduce the feelings of social isolation and encourage a sense of community among people (Lowenthal & West, 2020). Video conference meetings make the meeting and communication

become active. There is an opportunity for librarians to see their contemporaries on screen, and as well concentrate on trainer's explanation.

Barriers Encountered in Participating in Virtual Meetings

Freedom of numerous meeting styles is available in using virtual platforms such as Zoom and Skype. Even at that, numerous challenges are confronted by librarians in participating in virtual meetings. Some of the barriers identified by Anene and Idiedo (2021) include high cost of buying data bundle, not having computer/Android phone/smartphone, lack of knowledge of up-coming workshops, lack of knowledge of time, power failure, indifferent attitude to the use of technology, and inconsistency of network failures. Insufficient skills, irregular power supply, insufficient time, insufficient facilities such as computers and Internet access, and conservative behavior of some librarians make it hard for them to utilize Web 2.0 tools (Baro & Godfrey, 2015).

The main challenges librarians encounter while using virtual platforms, such as Skype and Zoom in participating in professional development, among others, are inadequate money for data subscription, inadequate time, computer phobia, and lack of interest. Others include power failure, poor network/low bandwidth, insufficient time, and lack of interest by some librarians (Semode et al., 2017). Poor Internet bandwidth may lead to indistinct voice in online platforms, unpleasantly delivered resources, inaccessibility of direct interaction among the librarians, and noise (Edet & Obi, 2021).

Materials and Methods

The quantitative study adopted a descriptive survey research design with the population of 158 librarians from 12 public universities in South-south, Nigeria. The study adopted total enumeration sampling techniques with questionnaire as the instrument of data collection. The questionnaire comprised four sections: A-D. Section A: ICT skills required by librarians to participate in virtual meetings for professional development; Section B: Frequency of librarians' participation in virtual meetings for professional development in various areas; Section C: Benefits librarians derive from participating in virtual meetings for professional development; Section D: challenges librarians confront in participating in virtual meetings for professional development. Agree and disagree were used for sections A, C and D. A 5-point Likert Scale of Always, Very Often, Sometimes, Rarely, and Never was used for Section B.

Fifteen copies of the validated questionnaire were administered to librarians at the Federal University of Technology, Akure to determine the level of reliability Cronbach's alpha method was used to analyze the paired score generated through the Statistical Package for Social Science (SPSS). Cronbach's alpha reliability coefficient of $r = 0.97$ was obtained which means a high reliability of the instrument. Frequency and percentage were used to answer Sections A, C and D

while mean and standard deviation was used to answer Section B. One hundred and eleven 70.3% were retrieved from the 158 copies of questionnaire administered.

ICT Skills Possessed by Librarians to Participate in Virtual Meetings for Professional Development

Table 1 shows the ICT skills possessed by librarians to participate in virtual meetings for professional development. The findings reveal that the ICT skills possessed by the librarians include social media 87(78.4%), word processing 83(74.8%), mobile device 80(72.1%), Computer network knowledge applicable to library/institution 74(66.7%), and Digital cameras/Imaging 73(65.8%). However, the table also reveals that skills such as electronic presentation 52(46.8%), computer security knowledge 46(41.4%), deep web knowledge 43(38.7%), and programming language 38(35.1%) are not possessed by the librarians.

Table 1. ICT skills possessed by librarians to participate in virtual meetings for professional development

ICT skills	Agree		Disagree	
	No.	%	No.	%
Social media	87	78.4	24	21.6
Word processing	83	74.8	28	25.2
Mobile device	80	72.1	31	27.9
Computer network knowledge applicable to library/institution	74	66.7	37	33.3
Digital cameras/Imaging	73	65.8	38	34.2
Web navigation	66	59.5	45	40.5
File management and windows explorer	61	55	50	45
Skills to design presentations for virtual meetings	57	51.3	54	48.7
Video conferencing	57	51.3	54	48.7
Electronic presentation	52	46.8	59	53.2
Computer security knowledge	46	41.4	65	58.6
Deep web knowledge	43	38.7	68	61.3
Programming language	38	35.1	73	64.9

Librarians' Participation in Virtual Meetings for Professional Development in Various Areas

Table 2 shows that the average mean ($\bar{x}=2.33$) is below the criterion mean. This means that the frequency of librarians' participation in virtual meetings for professional development in various areas in university libraries in South-South, Nigeria is low.

Table 2. Frequency of librarians' participation in virtual meetings for professional development in various areas

Areas	Always	Very Often	Sometimes	Rarely	Never	Mean (\bar{X})	Standard Dev.
Application of blended learning tools for classroom teaching	11	18	18	35	29	2.52	1.306
Reference services	14	12	17	42	26	2.51	1.306
Collection of data on the use of information resources by clientele	13	14	19	34	31	2.50	1.334
Acquisition	10	16	18	38	29	2.46	1.271

Cataloguing and classification	11	15	16	38	31	2.43	1.298
Bindery	10	14	20	36	31	2.42	1.269
Serial	11	11	21	38	30	2.41	1.261
Circulation services	12	15	16	38	31	2.39	1.288
Information literacy skills	3	12	29	35	32	2.27	1.078
Library Automation	6	4	33	39	29	2.27	1.061
Library management	5	7	31	37	31	2.26	1.076
Data and statistical analysis	14	3	10	40	44	2.13	1.315
Information security	4	6	17	51	33	2.07	.997
Formation and utilization of online surveys	9	3	11	42	46	1.98	1.168
Average Mean						2.33	
Criterion Mean						2.50	

Benefits Derived from the Virtual Meetings the Librarians Have Participated for Professional Development

Table 3 focuses on benefits derived from the virtual meetings the librarians have participated in for professional development. It reveals that the benefits include facilitation of feedback from librarians 94(84.7%), effectiveness in discussing crucial issues among librarians 94(84.7%), ease of conducting meetings during emergency situations 89(80.2%), advancement online communication with other librarians 87(78.4%), and easy to use to converse with other librarians 70(63.1%).

Table 3. Benefits derived from the virtual meetings participated in for professional development

Benefits	Agree		Disagree	
	No.	%	No.	%
Facilitation of feedback from librarians	94	84.7	17	15.3
Effectiveness in discussing crucial issues	94	84.7	17	15.3
Ease of conducting meetings during emergency situations	89	80.2	22	19.8
Advancement in online communication with other librarians	87	78.4	24	21.6
Easy conversation with other librarians	70	63.1	41	36.9
Enhancement of the understanding among librarians	69	62.2	42	37.8
Cost saving	65	58.6	46	41.4
Enhancement of flexibility in meetings.	61	55	50	45
Simple to use for meetings	61	55	50	45
Librarians usually take chances in delivering workshop/seminar presentations through using virtual platforms	59	53.2	52	46.8
Opportunity for elaborate discussion	56	50.4	55	49.6
Facilitation of discussion	56	50.4	55	49.6

Challenges Librarians Confront in Participating in Virtual Meetings for Professional Development

Table 4 displays the challenges librarians confront in participating in virtual meetings for professional development. The challenges include inadequate funds for data subscription 93(83.8%), inadequate time for participation 87(78.4%), the meeting consumes too much of data 80(72.1%), poor internet connectivity 73(65.8%), and low level of technical expertise 61(55%).

However, the respondents disagree that technophobia (52, 46.9%) is a barrier to participation in virtual meetings by librarians.

Table 4: Challenges librarians confront in participating in virtual meetings for professional development

Challenges	Agree		Disagree	
	No.	%	No.	%
Inadequate funds for data subscription	93	83.8	18	16.2
Inadequate time for participation	87	78.4	24	21.6
The meeting consumes too much of data	80	72.1	31	27.9
Poor internet connectivity	73	65.8	38	34.2
Low level of technical expertise	61	55	50	45
Technophobia	52	46.9	58	51.2

Discussion

This study found that the librarians possess majority of the ICT skills to participate in virtual meetings for professional development. The ICT skills possessed are in the areas of social media, word processing, use of mobile device, and computer network knowledge applicable to library/institution. However, the librarians are deficient in ICT skills such as electronic presentation, computer security knowledge, deep web knowledge, and programing language. The possession of the majority of the ICT skills by librarians may be because ICT is deeply used for meetings and information dissemination and has made the delivery of basic information services more effective (Ayoku & Okafor, 2015). According to Batool and Ameen (2010), to be able to participate very effectively in virtual meetings, librarians must be equipped with the necessary ICT skills. The findings support the findings of Safahieh and Asemi (2008) which assessed the computer literacy skills for virtual meetings among library professionals in Isfahan University, Iran and found that most of the librarians possess the required computer literacy skills to participate in virtual meetings.

This study found that the frequency of librarians' participation in virtual meetings for professional development in various areas in university libraries in South-South, Nigeria is low. This portends danger for the professional development of the librarians. Given the current level of insecurity in Nigeria and the high cost of transportation, it is advised and even better to participate in virtual meetings. The result of a study by Anene and Idiedo (2021) reveals that the frequency of participation in virtual meeting among librarians is low even though virtual meetings enable librarians to reach and draw the librarians that are geographically scattered, less mobile, and more characteristically different. However, the low frequency of librarians' participation virtual meetings for professional development in various areas reported in this study negates that of Edet and Obi (2021) which investigated continuing professional development activities of librarians in Nigeria during COVID-19 and found that most of the respondents took part in virtual meetings.

As was found in this study, the librarians derive a lot of benefits from the virtual meetings the librarians have participated in for professional development. This may be because virtual meetings enable librarians who are much far away from one another to see one another on real-time mode. A study by Kavulya (2007) found that participation in virtual meeting is highly beneficial as it brings people from different area together on real time. Anunobi and Ukwoma (2009) claimed that possession of ICT skills will enhance the professional development of the contemporary librarians in many dimensions. Edet and Obi (2021) averred that frequent participation of librarians that in virtual meeting may enhance their professional development. A study by Ofori (2013) found that professional library associations often conduct meeting which educate about the need for promotion of lifelong learning through regular training for their members. The Nigerian Library Association (NLA) and Librarians' Registration Council of Nigeria (LRCN) are found in this vanguard. These organizations enable their members to work together, study research outcomes, and use them in their individual professional settings.

This study found that the librarians have experienced some challenges with the virtual meetings they have participated in. This may be because the freedom and proximity are lacking in virtual meetings. More importantly, reluctance to participate in virtual meetings usually constitute barriers if one eventually participates in virtual meetings. Tella and Isah (2010) examined undergraduates' utilization of online forum at the University of Ilorin, Nigeria. The study acknowledged challenges to participation in the forum to include persistent power failure, and time factor resulting from tight schedule. The major confrontations encountered by librarians in participating in online professional development activities, according to Edet and Obi (2021), include paucity of funds for data subscription, over consumption of data, lack of time, technophobia, and lack of interest. The findings of this study are in line with those of Anene and Idiedo (2021) which found that high cost of data bundle for the Internet subscription reduces the level of participation in virtual meetings. The study equally found that lack of computers and mobile phone can obstruct the success of virtual meetings. This is in agreement with the study by Ademodi and Adepoju (2009) which aimed at determining the extent of computer skills and proficiencies possessed by library and information professionals in selected universities in Nigeria in participating in virtual meetings and found that the low level of ICT skills of the library and information professionals did not let them have high level of participation in virtual meetings. Anene and Idiedo (2021) surveyed Nigeria librarians' participation in professional development workshop using virtual platforms. It was found that most of the librarians could not participate effectively due to their low level of ICT expertise. It was discovered that the librarians exhibited indifferent attitude to the use of technology, and this affected their participation in virtual meetings.

Conclusion

The COVID-19 has taught the world indelible lessons among which are movement to virtual platforms for meetings. Today, librarians across academic libraries all over the globe are exploiting the potentials of virtual platforms to participate in meetings that enhance their professional development. The possession of the majority of ICT skills enables the librarians to participate effectively in virtual meetings. However, the frequency of participation of the librarians in virtual meetings for professional development is low. This may be because of the series of challenges encountered in the process of participation in the meetings. It is therefore recommended that the librarians should enhance their ICT skills through regular ICT training and computer practice. The librarians should regularly participate in virtual meetings so as to be aware of the contemporary developments in their profession. The universities should give sponsorship for librarians to participate in virtual meetings organized by various organizations and encourage them to present papers through which their professional development can be enhanced.

Author Contributions

The author has read and agreed to the published version of the manuscript.

Data Availability Statement

Data available on request from the author.

Conflict of interest

The author declares no conflict of interest.

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