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DIGITAL SKILLS PROFILE AND ACADEMIC STAFF SERVICE DELIVERY DURING COVID-19 PANDEMIC LOCK DOWN IN UNIVERSITIES IN CROSS RIVER STATE

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Abstract

This study assessed the academic staff digital skill profile and service delivery during COVID-19 pandemic lock down in universities in Cross River State. Ex-post facto research design was adopted for the study. The population of the study was 2427 academic staff of the university of Calabar and University of Cross River State. The sample for the study was 755 academic staff who were drawn through the simple random sampling technique. The instrument for data collection was the researchers' made Academic Staff Digital Skill Profile and Service Delivery Questionnaire (ASDSPSDQ). The instrument was validated by three experts from Educational Management and Research and Evaluation unit, Educational Foundation all in the University of Calabar. The reliability of the instrument was established through the split-half reliability method. Population t-test of single mean was used to analyse the data collected. The result revealed the digital skill standing of academic staff and as well as how this influences their service delivery in an era of COVID-19 pandemic.

Key words: *Academic Staff, Digital Skill, Profile, Service delivery, COVID-19, Pandemic.*

Introduction

Education is an essential instrument that facilitates general, individual and societal wellbeing. It is the most reliable tool for nurturing, conserving and preserving the culture and innovations of a given society. The education process generally survives and thrives through the provision of basic services by both academic and non-academic staff. Essentially, education services provided by academic staff are very critical to the development and success of students. The basic services provided by academic staff in universities include knowledge creation and dissemination through research, teaching and community service etc. The provision of academic services has assumed new dimensions in modern times, due to the advent of digital devices which have dominated every human activity. Therefore, automation and digitization of business processes and organizational services is fast replacing manual and analogue methods in many organizations and schools across the globe (Omorobi & Effa, 2019).

Therefore, academic staff and students are expected to develop adequate digital skills to be at par with the dynamics of modern organizational life. This is because, the efficient and effective delivery of educational services depend largely on digital devices. The centrality of ICT to education has been brought to fore by a couple of global threats affecting schools, such as wars, insurgency, and the novel COVID-19 pandemic. This require students to learn from home or at different locations. Among this threats, COVID-19 has been identified as the greatest global threats to education in recent times (Omorobi, and Eton, 2020). Corona virus disease 2019 (COVID-19), can be described communicable respiratory disease caused by a new strain of coronavirus that causes illness in humans. It spread from person to person through infected air droplets that are projected during sneezing or coughing. It can also be transmitted when humans have contact with hands or surfaces that contain the virus and touch their eyes, nose, or mouth with the contaminated hands. Infected persons are at risk of dying within 16-20 day without adequate medical attention (World Health Organization, 2020).

To avoid casualties; government developed a set of non-pharmaceutical measures such as social and physical distancing, use of nose mask, stay at home and regular use of hand sanitizers (National Center for Disease Control, 2020). This resulted in the compulsory shutdown of all schools culminating in the loss of 2019/2020 academic session in many countries. Consequently, the United Nations (2020) declared the COVID-19 pandemic as the largest disruption of education systems in history. Similarly, Nigerian education system is currently battling with some new dimension of threats namely; attacks on schools by Islamic extremist group- 'Boko Haram', militia bandits and the deadly COVID-19 pandemic. These threats result in destruction school facilities, deaths and/or forceful abduction of students and students. Therefore, teaching and learning has become unsafe within the confines of physical locations. Although, the death toll has reduced in

Nigeria, the government recently announced a fourth wave of the pandemic which claims to be more deadly (Presidential Taskforce on COVID-19, 2021). Consequently, a drastic paradigm shift into the new normal of virtual academic service delivery become imperative and inevitable. This can however be guaranteed if academic staff possess adequate digital competence.

Generally, universities are service enterprises where academic staff provide educational services to students. Academic services involves any activity or social exchange that supports students in their academic studies (Akuegwu & Nui-ue, 2016). It include any activity in school directed towards improving the quality of teaching and learning experience of students (Omorobi, 2018). The basic services provided in universities include teaching, research, and community service. Other services performed by lecturers include administration of examination, grading students' scripts, and counseling, dissemination of research finding through conferences, seminars, workshops and publication in learned journals. In Nigeria unlike in developed countries, most of these services are provided by academic staff without the aid of digital devices. This is because, many Nigerian universities are yet to tap into the advantages of a digital service delivery due to insufficient ICTs, lack digital skills, poor power supply and internet connectivity (Omorobi, Eton, & Chuktu, 2021). Therefore, the provision of academic service delivery in many Nigerian universities was almost impossible at the climax of the COVID-19 pandemic. This is because, the enforcement of physical and social distancing and avoidance of contacts with droplets of infected persons made it difficult for academic activities to continue resulting in a global learning crisis. Over 94% of the world's student population were affected by closure of schools due the COVID-19 pandemic (United Nations, 2020).

To mitigate the effect of the pandemic on schools, governments across the globe encouraged provision of online education service delivery. However, online academic service

delivery in Nigerian public universities remains difficult due to low digital skills profile among academic staff among other things. The United Nations Education Scientific and Cultural Organization (UNESCO, 2018) defined digital skills as the range of abilities required to use digital services, communication and networks to access and manage information. Digital skills assist people to create and share digital contents, communicate and collaborate, and solve problems for effective and creative self-fulfillment, learning, work and social activities.

Therefore, effective academic service delivery requires at least basic digital skills namely; Information and digital literacy skills: this involves the capacity to use digital technologies such as browser, connecting to the internet and keeping passwords secure, searching and filtering data and contents as well as the ability to evaluate, analyze and manage data and digital content by organizing and storing it; communicating and collaboration skills: the ability to interact through digital technologies by sending emails securely, using attachments and participating on social media; digital content creation skills: knowing how to develop and edit digital content in different formats. It also include understanding how to modify, improve and integrate information and content into an existing body of knowledge in order to create new content; consciousness of the validity of online contents and the capacity to access contents across devices, skills for carrying out online transactions like setting up accounts for purchase of goods and services; problem-solving: this involves identifying and finding solutions to problems (frequently asked questions FAQs) using digital tolls, presentation of tutorials/chats through software and being safe and legal online (European Union, 2020).

Information Communication Technology Council (2021) maintain that digital skills are very essential for modern teachers. It equips teachers with the ability to use digital technology, communication tools to locate and create use information in different formats (Henry, 2020). These

skills are very essential for academic staff whose work revolves around sourcing, integrating, synthesizing and sharing knowledge. Inadequate digital skills proficiency could cause underproductivity, inefficiency and poor service delivery among academic staff. Hence, the study investigated the influence of academic staff digital skills profile on educational service delivery.

Statement of the problem of the study

The novel corona virus 2019, presented huge challenges to education systems across the globe. Its challenges arise from is dangerous and devastating effect on human lives resulting to acute illness and high death toll. Its spate of transmission is overwhelming. It moves from person to person through close contact/exposure to coughing and respiratory droplets of infected persons. Infected person stands the risk of dying within 18 days. At the climax of the pandemic, it outstretched medical facilities in developed countries as a result of the millions of infected persons. Therefore, immediate the first case of the virus was announced in Nigeria; the government hurriedly shutdown all schools including universities and gave a matching order for academic staff to employ digital platforms for academic service delivery. Regrettably, majority of faculty members could not implement this alternative due to challenges ranging from lack of ICTs, internet access, and chiefly inadequate digital skills. Consequently, the 2019/2020 academic was completely lost. The devastating effect of the virus on the Nigerian education system could be mitigated if academic staff possessed adequate digital skills. Hence, the study examines how the digital skill profile influenced academic staff service delivery in university of Calabar.

Purpose of the study

The main purpose of the study is to investigate academic staff digital skills profile and service delivery during COVID-19. Specifically, the investigated:

1. The extent of academic staff digital literacy skills

2. The extent of academic staff digital communication skills

3. The influence of digital skills on academic staff service delivery

Hypotheses

The following hypotheses were developed to guide the study

1. Academic staff digital literacy skill is not significantly low.

2. The level of academic staff digital communication skills is not significantly low.

3. Academic staff digital skills does not significantly influence service delivery during the lockdown.

Literature review

Academic staff digital skill profile: Academic staff digital skills profile refers to the level of digital skills possessed by academic staff in universities. It is the level of academic staff proficiency in the application of digital facilities for carrying job related tasks. Academic staff specifically refers to university personnel saddled with the responsibility of teaching, research and community service. OECD (2013) defined academic staff as personnel whose primary assignment is instruction, research and public service. This includes staff holding academic rank with title such as professor, associate professor, assistant professor, instructor, lecturer or the equivalent of any of these academic ranks. Academic staff also refers to the teaching or research staff of a university (Wikipedia, 2021). The effective and efficient performance of the basic tasks of academic staff heavily rely on digital devices like computers, internet, social media platforms, and a plethora of soft wares used to enhance teaching and learning process. Therefore, academic staff are expected

to possess a reasonable level of digital skills to carry out their daily task particularly during a pandemic.

The COVID-19 pandemic resulted in the massive transition to online learning around the world. This made significant changes in teaching practice. The question arises whether teachers are ready to embrace online service delivery. Online service delivery requires possession of adequate digital skill. Simply put, digital skills refer to a set of knowledge, skills and aptitude that enhance the achievement of the objectives and goals of education through the use of ICT (Serezkinah, 2021). To possess adequate digital skills involves teachers' knowledge of various modern technologies, owning them, and being able the apply them in practice. In a study by Suárez-Rodríguez, Almerich, Díaz-García, & Fernández-Piqueras (2012) It was found that teachers' digital competence is a significant factor influencing both their teaching practices and their integration of ICT into education in general. List, Brante and Klee (2020) found differences when comparing concepts of digital literacy of teachers in the United States and Sweden. Akpan (2014) investigated the influence of ICT competence on lecturers' Job Efficacy in universities in Cross River State. The results of the study revealed that male and female lecturers did not differ significantly in their level of ICT competence. Lecturers with high ICT competence were found to be more efficacious in classroom instruction, research/publication, communication and recordkeeping than those with moderate and low ICT competence. The findings of this study revealed that the level of ICT competence of lecturers significantly enhanced their job efficacy.

Archibong, Ogbiji & Anijobi-Idem, (2010) found that ICT competency among academic staff in universities in Cross River State is low. The source attributed the low ICT competence of academic staff to inadequate ICT facilities, excess workload and lack of funding for training programmes. This situation is bad because ICT has become a critical toll for enhancing academic

staff efficiency and effectiveness in service delivery. The utilization of ICT by teachers improves learning outcome in students, enhances productivity, reduces isolation and increase job satisfaction. Many universities have been making efforts to provide digital services for teaching, library use, registration among others. However, the major challenge is lack basic computer appreciation skills by many academic staff (Omorobi & Effa, 2019). It has also been observed that the major setback of developing ICT competencies among tertiary educators is lack of training opportunities (Archibong, Ogbiji & Anijobi-Idem, 2010). Similarly, Pelgrum and Anderson (1999) found that training programmes among academic staff is low especially with regards to pedagogical ICT use. It is therefore imperative that 21st century academic staff should be competent in the use of common office application programmes, sending of e-mails, use of internet, use of applications for subject based teaching and classroom practices, production of multi-media course materials, data analysis, e-library use, video conferencing, and networking.

Wong, Sidek, Aida, Zakaria, Kamariah, Hamidah and Hanafi (2005) reported that females rated themselves to be more competent than males in ICT especially in inserting and editing texts for word processing, inserting texts and deleting slides for presentation, using search engines and downloading files from web and using e-mails for communication. Ekpoh and Etor (2012) found in their study on academic staff utilization of Information and Communication Technology (ICT) in knowledge creation in universities in Cross River State; that provision of ICT tools by university management was inadequate, majority of the academic staff rated their ICT competence as low and the extent of academic staff utilization of ICT in knowledge creation activities was significantly low. Within the context of Nigerian university system, since the advent of ICT, its implementation and full integration into the university system has been plagued by fundamental problems Prominent among these problems are lack of basic ICT infrastructures, inadequate

funding, low level of ICT literacy among lecturers, dearth of technical support staff among others. Aginam (2006) reported that the level of application of ICT in Nigeria universities is less than 5 %. As observed by the study, most of these universities have no infrastructure and do not even have the fund to provide such infrastructures on their own. A study by Olulube (2006) found that lack of adequate ICT infrastructures in universities have reduced access to ICT instructional material to faculty.

Tor and Malgwi (2020) found that institutional and facility-related challenges affecting faculty staff' ICT skills application to academic activities in the universities in Benue State include: inadequate funding of ICT ventures, lack of sponsorship for ICT training, inadequate ICT facilities, unstable power supply and poor internet connectivity. ICT has eased the stress associated with the conventional method of executing tasks, by initiating technology-driven means of performing statutory roles with improved speed, accuracy and efficiency. ICTs are identified as sources for increased productivity, has informed the decision of many institutions to adopt them in Nigeria. Today, people are increasingly considering ways of living, working, and interacting that are not facilitated by ICT as unwelcoming, outlandish and outmoded (Tor, Wisdom & Ezekiel, 2019).

Service delivery in universities: Literature evidence indicates a growing interest in service delivery in universities (Teya, 2011). Over the last decade managers of higher education have continued to place emphasis on quality service delivery in universities. This is because, effective service delivery is a critical condition for the survival of university education in Nigeria and Africa in general (Owolabi, 2010). According to Rue (2006), service delivery is the degree to which an employee accomplished the tasks that made his or her job. Similarly, El-Rufai (2013) perceives service delivery as the degree of an organization and/or employee's performance, output and

productivity, as he/she discharges his responsibilities within the available time, money and other resources, towards the achievement of overall goals of the organization. Therefore, academic staff service delivery can be seen as the quality of performance expected of lecturers within the university system (Olayemi, 2019). It involves the efficient and effective performance of major functions of teaching, research and community service.

Academic staff play vital roles in the delivery of services to students in universities (Olayemi, 2019). Therefore, the success of any university system depends on the quality of services provided by academic staff. It is therefore imperative to adequately equip academic staff with all the necessary tools required for the effective performance of their duties. Hence, the need for empowering academic staff for effective service delivery cannot be over emphasized (Olayemi, 2019). According to Ayeni, Jaiyeoba and Atanda (2008), academic staff in Nigerian universities are saddled with the delivery of three major services; teaching, research and community service like their counterparts in other parts of the world. Academic services provided by lecturers in universities also include instruction delivery (teaching), evaluation and research, supervision, instructional materials acquisition, collaboration, publication and communication. According to Abba and Adamu (2019), academic activities are essential to the sustainability of universities in the modern world.

Academic staff cannot not effectively and efficiently provide satisfactory services to young digital natives without incorporating ICTs in an era of COVID-19. This is because Information and communication technologies are basic enablers to academic staff job performance. Additionally, ICT helps students and teachers to actively participate in academic activities at different locations synchronously or asynchronously thereby complying to the COVID-19 protocols of physical distancing and stay at home. Despite the enormous benefits of a digitally

driven service delivery, many universities in Nigeria including university of Calabar opt for in-class/traditional teaching and learning as a result of paucity of ICTs, connectivity and lack ICT skills on the part of lecturers. However, the study conducted by Omenyi, Agu and Odimegwu (2007), underscores the indispensability of ICTs. The researchers reported that teachers feel ICT helped them to increase their classroom efficiency. The study also revealed that teachers' perception of their increased job efficiency was associated with the level of ICT competence possessed by the teachers. It therefore follows that; ICT is effective in providing educational delivery to students. Similarly, Akpan (2014) found that the level of university teachers' ICT competence greatly impacted upon their efficiency in classroom teaching, communication, students' record keeping, and research/ publication.

Olayemi, Adamu and Olayemi (2021) reported in their study that majority of students of Bayero University Kano, have high ICT skills and are conversant as well as readiness for online instruction delivery but expressed concerns about the cost of data, poor internet service lack ICT facilities and erratic power supply. In Indonesia Amir, Tanti, Maharani, Wimardhani, Julia and Puspitawati (2020) found high students' preference for online distance learning mode of instruction delivery. These results indicate that students are have the necessary capacity to effectively engage in online academic services if they were provided by their lecturers.

Methodology

The research design adopted for this study was ex-post facto, the rationale for this is because the COVID-19 pandemic lockdown had taken place before this study was conducted. The population for this study consisted of lecturers from the 2 public universities in Cross River State, Nigeria. The simple random sampling technique was employed to select academic staff from University of Calabar and University of Cross River State. The instrument for data collection was the

researchers' developed instrument titled Academic Staff Digital Skills and Service Delivery Questionnaire (ASDSSDQ). The instrument was divided into three main sections; section A contained questions regarding academic staff bio-data, section B consisted of item bothering on academic staff digital skills and section C covered items on service delivery. Section B consisted of 18 items and section C had seven items. The instrument was validated by two experts from Educational Management one expert from Measurement and Evaluation, all in the Faculty of Education Foundation Studies, University of Calabar. The instrument was further subjected to a reliability test using 40 academic staff from University of Uyo, Akwa Ibom State. Using the Cronbach's reliability method. The instrument recorded alphas of .76 and .89; indicating that the instrument was both valid, reliable and usable for the study. The instrument was administered to all sample academic staff in both universities and collected without any attrition. The analysis of the data collected was done the population t-test and One way analysis of variance.

Results

Hypothesis one: Academic staff digital literacy skill is not significantly low.

Table 1

Population t-test (test of single mean) Analysis of the level of academic staff digital skills

(N=756)

Variable **Digital literacy skills**	μ	X	SD	t	p-val.
Electronic mailing skill	2.5	2.4	1.02	-1.04	.042
Electronic conferencing skill	2.5	2.1	.97	-10.65	.000
Mobile phone usage skill	2.5	3.5	.97	1.73	.000
PDAs	2.5	2.3	1.08	-3.11	.002
Computer accessories navigation skills	2.5	2.4	1.18	-2.04	.041
Internet surfing skills	2.5	2.2	1.01	-6.63	.000

Computer operations skills	2.5	2.1	.96	-8.99	.000
Social networking skills	2.5	2.6	1.12	1.64	.000
Media projecting skills	2.5	2.6	1.21	3.61	.000
Management of electronic bulletin board skills	2.5	2.7	1.19	4.90	.000
Use of Microsoft packages skills	2.5	2.3	1.08	-4.24	.000
Digital communication skills					
Effective use of face book	2.5	2.2	.98	-1.58	.000
Effective use of twitter	2.5	2.4	1.01	-2.48	.013
Effective use of LinkedIn	2.5	2.3	1.04	-2.84	.005
Effective use of Instagram	2.5	2.1	.96	-11.4	.000
Effective manage a blog	2.5	2.4	1.02	-1.82	.069
Confidently present/post live video	2.5	2.5	1.10	.446	.656
Effectively provide podcast to students	2.5	2.2	1.01	-5.68	.000

*$p < .05$, df=755, critical t= 1.96

A careful observation of the results presented in table 1 above indicates that academic staff digital literacy skills is significantly low in terms electronic conferencing skills ($t= -10.65$, $p<.05$); PDAs ($t= -3.11$, $p<.05$); Computer accessories navigation skills ($t= -2.04$, $p<.05$); Internet surfing skills ($t= -6.63$, $p<.05$); Computer operation skills ($t= -8.99$, $p<.05$); Media projecting skills ($t= 3.61$, $p<.05$); Management of electronic bulletin board skills ($t= 4.90$, $p<.05$); and Use of Microsoft package skills ($t= -4.24$, $p<.05$). Therefore, the null hypothesis was rejected since the obtained t- values are greater the critical t-value of 1.96 at .05 level of significance with 754 degrees of freedom. Hence, academic staff digital literacy skill was significantly low with respect to electronic conferencing skills, Use of PDAs skills, computer accessories navigation skills, internet surfing skills, computer operation skills, media projecting skills, use of electronic bulletin skills, and Microsoft package skills. However, the result on the table highlights that academic staff

digital literacy skills are not significantly low with respect to electronic mailing skills (t= -1.04, p<.05); Mobile phone usage skills (t= 1.73, p<.05); and social networking skills, using the same critical t-value, alpha level of significance and degrees of freedom. This implies that academic staff digital literacy skills in terms of electronic mailing, mobile phone usage skills and social networking skills is significantly high.

A further observation of table 1 showed that observed mean values were lower than expected mean value in some of the indices of digital literacy as confirmed by the negative t-values, except for mobile phone usage skills, social networking skills, media projecting skills and management of electronic bulletin board skills. Furthermore, for digital communication skills the result revealed that, academic staff digital communication skill was significantly low with respect to use twitter (t= -2.48, p<.05), LinkedIn (t= -2.84, p<.05), Instagram (t= -11.4, p<.05); and podcast (t= -5.68, p<.05). Therefore, the null hypothesis was rejected since the obtained t- values are greater the critical t-value of 1.96 at .05 level of significance with 755 degrees of freedom. This implies that academic staff digital communication skills is significantly low in terms of twitter usage, LinkedIn, Instagram, and podcast. On the other hand, the result on the table shows that academic staff digital communication skills are not significantly low with respect to use of face book (t= -1.58, p<.05); Blog (t= 1.73, p<.05); and streaming live video (t= .446, p>.05), using the same critical t-value, alpha level of significance and degrees of freedom. It therefore follows that, academic staff digital communication skills in terms of face book usage, usage of blogs, and streaming of live videos skills for delivery of academic services is significantly high.

Table 2

Population t-test (test of single mean) Analysis of the level of academic staff service delivery during the lockdown (N=756)

Variable	μ	X	SD	t	p-val.

Academic staff service delivery

Instructional delivery	2.5	2.5	.98	-2.58	.000
Supervision of students' research	2.5	2.4	1.01	-2.48	.013
Research	2.5	2.1	1.02	1.03	.000
Conference attendance	2.5	2.3	1.04	-3.46	.005
Publication of research	2.5	2.1	.96	-10.4	.000
Evaluation of students	2.5	2.4	1.02	-5.82	.069
Record keeping	2.5	1.5	1.10	1.44	.656
Students advising/counseling	2.5	2.2	1.01	-5.68	.000

*$p< .05$, df=755, critical t= 1.96

The result on table 2 indicated that academic staff service delivery during the lockdown was significantly low with respect to instructional delivery ($t= -2.58$, $p<.05$); supervision of students' research ($t= -2.48$, $p<.05$); conference attendance ($t= -3.46$, $p<.05$); research publication ($t= -10.4$, $p<.05$); evaluation of students ($t= -5.82$, $p<.05$) and students advising/counselling ($t= -5.68$, $p<.05$). Therefore, the null was rejected since the obtained t- values are greater the critical t-value of 1.96 at .05 level of significance with 755 degrees of freedom. This implies that academic staff service delivery was significantly low in the above-mentioned indices. On the other hand, a careful observation of the results on table 3 also revealed that academic staff service delivery during the lockdown was not significantly low in terms of research ($t= 1.03$, $p<.05$) and record keeping ($t= 1.44$, $p<.05$) using the same level of significance and degrees of freedom.

Table 3

One-way analysis of variance of the influence of academic staff digital skills on service delivery during the COVID-19 pandemic lockdown

Variables	Service del.	N	M	SD	Source of V.	SS	df	MS	F	P-val.
Digital skills	Low	217	22.97	2.1	Bet. group	9487.058	2	4743.529	1651.131	.000*
	Average	359	28.00	1.3	With. group	2160.418	752	2.873		

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High	197	32.77	1.5	Total	11647.475	754
Total	755	27.69	3.9		

Fisher's Least Square Difference (LSD) multiple comparison of the influence of academic staff digital skills on service delivery during the COVID-19 pandemic lockdown

Digital skills	Service del.	High (n=197)	Average (n=359)	Low (n=217)
	High	32.77[*]	0.03	0.028
	Average	4.77	28.00	0.02
	Low	9.8	5.03	22.97

There is no significant influence of level of academic staff digital skills on service delivery during the COVID-19 pandemic lockdown. The results showed that for digital skills and service delivery $F_{(2, 752)} = .1651.131$, $p < .05$), Since $p(.000)$ is less than $p(.05)$ the null hypothesis is rejected. Thus, there is a significant influence between academic staff skills and service delivery during the COVID-19 pandemic lockdown. A post hoc test was carried out using Fishers Least significant difference technique and the result is presented in Table 13. The result showed that mean value (X=32.77) of academic staff with high digital skills was higher than the mean value of those who had average digital skills (X=28.00) and low (X=22.97). This implies that those who were highest digital skills provided services to students the most, during the lockdown.

Discussion

The results of hypothesis one indicated that academic staff digital literacy skills was significantly low with respect to electronic conferencing skills, use of PDAs, computer accessories navigation skills, internet surfing skills, computer operation skills, media projecting skills, use of electronic bulletin skills, and Microsoft packages skills. The low digital literacy skills among academic staff in the above listed indices is as due to the fact that, many academic staff unlike modern 'digital natives' who are born into societies with ubiquitous digital devices; require several trainings and retraining to acquire basic digital skills. The findings of the study corroborate the

findings of Ekpoh and Etor (2012) who found in their study on academic staff utilization of Information and Communication Technology (ICT) in knowledge creation in universities in Cross River State; that provision of ICT tools by university management was inadequate, majority of the academic staff rated their ICT competence as low and the extent of academic staff utilization of ICT in knowledge creation activities was significantly low.

Similarly, the low level of digital skills among academic can also be attributed to inadequate motivation and orientation for technology adoption among other things. In some cases, academic staff do not own basic ICTs and do not possess the requisite digital literacy skills needed to provide electronic based learning services during the lockdown. Many institutions in Nigeria hardly provide academic staff with capacity building opportunities on modern digital skills. This is in tandem with the result of Tor and Malgwi (2020) that, institutional and facility-related challenges affect faculty staff' ICT skills application to academic activities in the universities in Benue State. They identified the challenges to include inadequate funding of ICT ventures, lack of sponsorship for ICT training, inadequate ICT facilities, unstable power supply and poor internet connectivity. It is imperative to reiterate that, little or no efforts are been made by several school management to comply with the National Universities Commission (NUC) ICT policy on academic staff-computer ratio that specifies at least one computer to every senior lecturer and above. Besides, in situations where academic staff possess basic digital skills, other challenges like poor power supply, poor internet service, cost of digital devices and internet services, low internet bandwidth hinder academic staff from utilizing these skills in providing of academic services.

The result of hypothesis two also indicate that academic staff digital communication skills is significantly low in terms of twitter usage, LinkedIn, Instagram, and podcast. The low digital skills among academic staff based on these indices can be attributed to low digital literacy

skills, lack of awareness, lack digital devices among others. To communicate digitally, academic staff need to possess adequate enabling digital skills and devices required to facilitate digital communication. This is because, digital communication skills cannot operate independently without the devices with applications that provide the gateway for digital communication. This agrees with the finding of Akpan (2014) that the level of university teachers' ICT competence greatly impacted upon their efficiency in classroom teaching, communication, students' record keeping, and research/ publication.

One the other hand, the results of the third hypothesis showed that academic staff service delivery during the COVID-19 pandemic lock down was significantly low in terms of instructional delivery, supervision of students' research, conference attendance, research publication, evaluation of students and students advising/counselling. The direction of this result in chiefly due to the complete shut down of academic activities within the period under review as well the lack of digital facilities required to enhance virtual platforms of providing such services. Many academic services such local and international conferences, instructional delivery, students' evaluation, advising and counselling within the period under review were abruptly changed from physical to virtual platforms. This was not the norm for many academic staff who grossly lack basic digital facilities and skills to facilitate virtual services. The finding is similar to Bassey (2012) finding that, service delivery Southern universities was significantly low during university post-deregulation era.

Furthermore, the result of the fourth hypothesis indicated that there is a significant influence between academic staff level of digital skills and academic service delivery during the lockdown. It was revealed that academic staff with high digital skills provided academic services the most during the lock down, followed by those with moderate digital skills and those with low

digital skills provided academic service the least. The result is indicative of the fact that all the provision of academic services within the period under review depended solely on digital devices which required high digital skills for effectiveness and efficiency on the part of lecturers. The results align with Akpan (2014) Lecturers with high ICT competence were found to be more efficacious in classroom instruction, research/publication, communication and recordkeeping than those with moderate and low ICT competence. However, its imperative to note that another powerful factor (not accounted for in this study) which could influence academic staff service delivery within the period under review, was the prolonged nation industrial action of Academic Staff Union of Universities and non-payment of salaries as a result of government effort to forcefully migrate academic staff into its accountability system- IPPIS.

Conclusion

Based on the findings of the study, it was therefore concluded that digital skills among academic staff was significantly low and thus hindered academic staff delivery of basic services to very large extent during the COVID-19 pandemic lockdown. This situation is very dangerous given that besides the outbreak of COVID-19, the world today is driven by digital technologies for provision of services whether in schools, banks and churches. Consequently, the Nigerian youth will be left behind or cannot participate effectively in the global knowledge economy without been adequately equipped with 21st digital skills that can enable them standout in the world of works. Therefore, lecturers as knowledge creators and transmitters are expected to possess adequately digital skills to ease their job of research, teaching and community service.

Recommendations

The following recommendations were made for the study.

1. Academic staff should be adequately trained on digital skills through regular workshops and seminars.

2. Lecturers and students should be provided with computer systems, internet facilities and power supply to enhance utilization of digital facilities.

3. Academic staff should be trained on using and managing digital presentation packages to build their capacity and confidence for electronic and virtual presentation of course contents.

Reference

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