Assessment of the Readiness of Institutions and Undergraduates' Attitude to Online Learning Mode in Nigerian Universities

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

The emergence of the corona virus pandemic and the rate of the spread affected a lot of activities across the world. This led to the introduction of online learning mode in several countries after institutions were shut down. Unfortunately, most public universities in Nigeria could not switch to the online mode because they were not prepared for it as they do not have the technological capacity to support a full online learning mode. This study examines the readiness of University and attitude of undergraduates towards online learning mode in Obafemi Awolowo University (OAU), Ile Ife. It investigated the skills and competencies of students for online learning as well as the University's readiness towards online learning mode and effort was made to identify challenges of online teaching and learning in the study area and suggested solutions were advanced. OAU was

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selected because it is adjudged to be the leading Information and Communication Technology (ICT) driven institution in Nigeria. The study employed a descriptive survey research design. A total of 256 academic staff and 1503 undergraduates were selected across six faculties out of the thirteen faculties in the University. Questionnaires were used to elicit responses from the respondents. The result showed that students have the skills and competence to operate e-learning facilities but are faced by challenges such as high data cost, erratic power supply, lack of gadget among others. The study found out that the university was not prepared for online learning mode as it lacks basic technological facilities to support it. The study equally showed that while lecturers possess certain skills in using some e-learning applications, they were limited by the unavailability of online support gadgets, poor internet connectivity, and unstable power supply. Furthermore, the assessment of student attitude towards online learning mode shows that the students found the online learning mode very challenging as they had to bear the huge cost of data. Lecturers also faced same challenge as they had to pay a lot to buy data and the networks were sometimes unstable. The study recommended that adequate funding needs to be provided to public universities by the government while management of institutions must build technological capacities to support online learning mode in the hybrid form and on full basis in case of future emergencies.

1. INTRODUCTION

The emergence of the worldwide pandemic (corona virus) popularly referred to as COVID-19 which emerged in December 2019 in Wuhan, China poses a significant and immediate threat to all. The uprising of the virus has so far impeded the social, economic, political as well as the educational activities of each country it pervaded. It is difficult to estimate the devastating impact of the infectious diseases on lives, health, and education around the world. It has affected more than 180 countries across the continent of Europe, Africa, Asia, North America, South America/ Oceania. Due to the awful effect and trauma it has caused on the citizens of the planet by increasing the death toll (number) of people, hence instilling fear in people's heart. The World Health Organisation (WHO) then on 11th March, 2020 declared the Coronavirus as a global pandemic [1].

The impact of the coronavirus epidemic prompted the government to shut down institutions of learning including higher institution, and students were ordered to go home in order to contain the spread of the virus. Nigeria is one of the countries that was affected by the virus hence her government also declared shutdown of activities within the country including educational activities [2]. The ripple effect of such actions have been found to be juvenile delinquency among students such as impaired cognitive learning, delay in graduation, tendency to postpone academic study and student exhibit unhealthy behavior during lockdown. To fill the gap and ensure continued education, universities across the continent are establishing work force to mitigate epidemic impact. Many are trying to get into online teaching and learning through corporate national, continental and international initiatives. Online learning is seen as an alternative learning that relies entirely on the use of internet and some other key technologies with no physical classroom use between students and teachers [3]. Many institutions in the developed countries have no issues switching the platform of learning thereby they quickly switched to the online method of teaching in order to engage students in their respective courses and study programme [3]. In the same vein, many developing and underdeveloped countries are making concerted effort to adopt the same approach. However, it is a difficult task due to poor, mixed perception of infrastructure, adequate preparation of institutions and students. Many of such countries were caught unaware thereby leading to little or no preparation of institutions and students as well. Several students do not have necessary gadgets and devices or internet connections for the novel platform of learning. The idea behind the introduction of online learning during the pandemic is that it provides better flexibility in teaching, content management, synchronous and asynchronous communication between teachers and students and the organisation and creation of courses. In addition, it has the potential to create a new learning environment for a successful educational programme and provides students with the tools to connect with peers and teachers inside and outside the classroom without spreading the virus.

1.1 Statement of the Problem

Nigeria being one of the countries affected ordered total lockdown of activities in the country, educational activities not excluded. However, the Federal government at a certain period directed the heads of higher institution to resume academic session that was stopped as a result of the pandemic. This raised different reactions from the stakeholders, parents, students and lecturers which were attributed to the concern on the lack of adequate framework conditions for the implementation of the online teaching modality. Other challenges identified include a lack of technological skill and experience as well as poor facilities of the teaching infrastructures necessary for smooth online teaching mode. The online teaching and learning mode is known to depend on the availability of working Information and Communication Technology (ICT) facilities, technical knowledge (skills) and the willingness of students. With these in mind, this study aims to examine the readiness of universities and undergraduate attitude towards e-learning using Obafemi Awolowo University which is one of the first generation universities, one of the largest universities and the leading ICT University in Nigeria.

1.2 Research Objectives

Generally, the research seeks to assess the readiness of institutions and undergraduate attitudes to online teaching mode in universities. Specifically, the study is designed to achieve the following objectives:

1. To determine students' readiness towards using online learning mode in Obafemi Awolowo University.
2. To determine the skills and competencies of students for online learning in the study area
3. To determine the university's readiness towards online learning mode
4. To identify the challenges of online teaching and learning in the study area.

1.3 Research Questions

This study was guided by the following research questions:

1. What is the level of student's readiness towards using online platform?
2. What skills and competencies do students have for using online learning platform?
3. What is the level of lecturer's readiness toward online teaching platform as provided by Obafemi Awolowo University?
4. What are the challenges faced by lecturers during the use of online teaching platform?

2. LITERATURE REVIEW

Smart and Capel [4] noted that the terms "e-learning", "online learning" and "web-based learning" are used interchangeably. According to Khar and Gogia [5], online learning or e-learning is an electronic learning process that uses computers, cell phones or other electronic devices and accesses the Internet. There are two types of online learning: synchronous interactive settings where learners meet in real time. This type of education relies entirely on Internet-based resource and support systems that anyone with access to can access and learn from anywhere. Unstable online learning, on the other hand, involves interactive sessions in which participants interact at different times. It's an "on-demand" service that provides educational content in the form of virtual classrooms, webinars, online courses, discussion forums and more. In online learning, teacher-centeredness has shifted to a student-centered approach [6]. Accordingly, online learning critically relies on electronic devices and an effective library system that provides uninterrupted online resources from around the world. In most developing countries, learning is mostly traditional (one on one), so adopting online learning requires certain behavioral modifications and disciplinary guidelines so that it can be used by both learners and teachers. The work came in handy. This is gaining importance because not all students and lecturers are sufficiently familiar and qualified to participate in online learning platforms. As such, online learning can only be effective if there is an adequate support system. For such support to be sustainable, students and facilitators must have unified access to the skills needed to navigate electronic devices, the Internet, and platforms. In addition, they should be aware of the new environment and the new culture of education. Therefore, students' concept of e-learning resources can lead to acceptance and use, which can translate into a good additional learning method during epidemic lock down [7].

Online learning is learning that goes beyond the walls of the classroom, but improves the prospect of using internet tools, platform, satellite channels and related systems to access, analyse, create, share and use data, information

and knowledge in ways that have been almost been almost unthinkable in recent times [8]. Online learning includes learning acquired through interactions with digital contents, online services and learning media, often using any type of online tools and media, including the internet, intranets, extranets, simulations and games, virtual worlds, clouds, satellite broadcasting and web platforms (Jarmin, 2010; Pelet & Lecarte, 2012; Schutt & Linegar, 2013).

Online learning is achieved through the use and integration of electronic media such as emails, portals, downloadable executables, social media sites, web platforms, theses and electronic portfolios, among others [9], (Weller, 2010; Bouchard, 2011). Mobile learning, that is, the ability to receive or deliver educational content on personal portable devices such as PDAs, smartphones, and cell phones, is also a form of e-learning (Harbakh, 2013). ICT is believed to support collaborative learning, provide more information and, through simulation, facilitate understanding of difficult learning processes. Thus, neither teachers nor students can ignore the use of ICT. This claim is underscored by Van der Westuisen (2004), who stated that when it comes to the use of ICTs for education, technology promises better access to information and increased interactivity and communication between teachers and their students. Information and communication technology (ICT) includes the effective use of tools and programs to access, retrieve, convert, store, organize, manipulate and present data and information [10]. E-learning, which has been described as the use of ICT to enhance or support learning and learning in education, has become increasingly important in tertiary education [11]. For many developing countries, e-learning is seen as a solution to the growing demand for higher education. For example, in Pakistan, online education is promoted as "education for all" because it is aimed at students who live far from cities and cannot afford traditional higher education [12]. In Botswana, e-learning solves the problems of large class sizes, increased enrollment, and limited staff [13]. The author stated that the decision to integrate e-learning "was not born from the desire to join an elite club of universities with technical knowledge, but from the need to solve practical problems related to the accessibility and quality of learning experiences". E-learning is also expected to help improve students' computer literacy [14]. Various challenges related to promoting online education in developing countries were discussed. A survey among staff and students at three Nigerian universities showed that the low acceptance of online learning was due to low levels of awareness, low levels of computer literacy, unreliable internet platform and services, and high cost implementation [15].

Recently, various studies (e-learning) on this subject have been conducted globally, but there are few or no studies that pay special attention to issues related to the perception and preparation of undergraduates for e-learning in Nigeria during the lockdown of COVID-19 epidemics. Bekzek, Zagazzek-Bezezek szpringer, Jarozzyski and Voakowska-klpln (2020) studied the perspective of e-learning students during the COVID-19 epidemic in Poland. The results show that most students did not experience any form of e-learning before the epidemic, so they identify technical issues as their main challenges. This discovery may be due to the fact that students were not previously exposed to e-learning due to insufficient awareness and accessibility of necessary facilities. Shetty, Shilpa, Day and Kavya [16] examined the attitudes of undergraduates towards e-learning during the COVID-19 crisis in India.

The results show that during the epidemic, students have a favorable attitude toward online learning to keep their academic interests and growth. However, during the course of online learning he faced many challenges such as lack of face-to-face communication, lack of socialization, distance from social media and technology. In contrast, Abbasi, Ayoub, Malik and Memon [17] surveyed their perceptions. Students turn to e-learning during the lockdown at the Liquate College of Medicine and Dentistry. The result indicates that most students have a negative perception of e-learning. The study concludes that administration and faculty members need to take significant steps to improve e-learning for better education during lockdown. The new way of delivering lectures/classes is a step in the right direction to respond to change and prepare the student for online learning. The preparation of students, assistants, and technology is an important component of the event. It underscores the students' ability to use technical tools and the ability to participate in self-directed learning. So, you can see how effective or accepted online learning is. Chung, Subramaniam and Das [18] surveyed students' readiness for online learning in Malaysia. The results show that students' preparations to participate in online learning are

moderate because some of them are not ready for online learning due to lack of learner control, self-directed learning and the effectiveness of online communication. Nganga, Waruru, and Nakweya [19] say that preparations for online learning vary by institution in terms of the challenges universities face in enabling students to complete courses on time during a coronavirus pandemic. Not all students and teachers have received training on how to participate in online learning. Most students do not have a laptop or money to buy an Internet package. Dube [20] investigated the challenges faced by students in rural South Africa in the context of Covid-19. The results show that the biggest challenge facing online education is internet connectivity, which respondents claim to be very expensive or, in some cases, very limited. Other problems mentioned are the availability of network, the lack of devices for online learning, the closure of internet cafes, the lack of computer skills and expensive internet data. From the previous literature review, it was found that students have different perceptions about the use of online learning. Therefore, the results will be different. This perception may arise from the fact that they have different levels of exposure, knowledge and encounters.

3. METHODOLOGY

The study employed a descriptive survey research design. This research design was chosen because of it aims to accurately and systematically describe a population, situation or phenomenon. It can answer what, where and how questions which is prominent to this study. The study population comprises of the total number of undergraduate students in Obafemi Awolowo University (OAU). Obafemi Awolowo University is one of the first generation universities, one of the largest universities and the leading ICT University in Nigeria located in Ile-Ife, in southwestern part of the country. It was founded in the year 1961 formally known University of Ife. Currently, the University has 28,810 undergraduate students and 1,780 academic staff. The latitude of Obafemi Awolowo University, Ife, Nigeria is 7.520767, and the longitude is 4.530315. Obafemi Awolowo University, (OAU) is located in Nigeria, She *is* with the GPS coordinates of 7° 31' 14.7612'' N and 4° 31' 49.1340'' E. Multi-stage sampling procedure was employed. Purpose sampling technique was used to select Obafemi Awolowo

University which is acclaimed to be the leading ICT University in Nigeria. Simple random sampling technique were used to select six faculties out of the 13 faculties in OAU. 250 undergraduates were selected each from the six faculties using convinence sampling which makes the total of 1500 undergraduates while 50 academic staff were selected each also with the use of convenience sampling which make the total of 300 academic staff.

4. RESULTS AND DISCUSSION

Research Question 1: What is the Level of Students' Readiness towards Using online Platform?

The question 'I have a sound knowledge of ICT to operate on any platform.' is ranked highest by the mean, (Mean = 2.62, S.D. = 0.15), while the question 'I will not face any form of distraction during my online class.' is ranked lowest by the mean, (Mean = 2.14, S.D. = 0.71).

The item 'I feel confident in using computer.' is ranked highest by the mean, (Mean = 2.57, S.D. = 0.68), while the item 'Adopting ICT and online learning mode allows for increased students learning satisfaction.' is ranked lowest by the mean, (Mean = 1.98, S.D. = 0.65).

Research Question 2: What Skills and Competencies Do Students have for Using Online Learning Platform?

The item 'Online communication skills: social, media (Facebook, Twitter, Email, etc.' is ranked highest by the mean, (Mean = 2.69, S.D. = 0.57), while the item 'Using online tools in education skills, e.g., Skype, web video, YouTube, etc.' is ranked lowest by the mean, (Men = 2.11, S.D. = 0.43).

Research Question 3: What is the Level of Lecturer's Readiness towards Online Teaching Platform as Provided by Obafemi Awolowo University?

The question 'Do you think using the online teaching platform is time consuming?' is ranked highest by the mean, (Mean = 1.50, S.D. = 0.50), while the question 'Do you have an internet enabled computer?' is ranked lowest by the mean, (Mean = 1.03, S.D. = 0.17).

Table 1. Assessment of Students' Readiness towards Using Online Learning Platform

	Items	SA	A	SD	D	MEAN (X̄)	Standard Deviation (σ)
1.	I have a sound knowledge of ICT to operate on any platform.	328 21.8%	584 38.9%	146 9.7%	9.7 29.6%	2.62	0.15
2.	With my knowledge in general web browsing or surfing, using online learning will not be a problem.	405 26.9%	504 33.5.%	146 9.7.%	448 29.8%	2.51	0.45
3.	I have a sound electronic (computer/smartphone) to take my online classes.	386 25.7%	472 31.4%	156 10.4%	489 32.5%	2.35	0.63
4.	I have access to Google internet to get me connected to an online learning class.	358 23.8%	498 33.1%	155 10.3%	492 32.7%	2.48	0.67
5.	I will not face any form of distraction during my online class	354 23.6%	385 25.6%	185 12.3%	579 38.5%	2.14	0.71
6	I have regular power supply	266 13.7%	433 28.8%	244 16.2%	560 37.3%	2.39	0.62
7	With my good knowledge of the internet using online learning will not be a problem	401 26.7%	491 32.7%	125 8.3%	486 32.3%	2.38	0.54

Source: Field survey, 2021

Table 2. Assessment of Students Attitude towards ICT and Online Learning Mode

S/N	Items	SA	A	SD	D	Mean ($\bar{x}$)	Standard deviation (σ)
1.	I feel confident in using computer.	344 22.9%	588 39.1%	105 7.0%	466 31.0%	2.57	0.68
2.	I believe that online learning mode gives me opportunity to acquire new knowledge	354 23.6%	589 39.2%	116 7.7%	444 29.5%	2.45	0.72
3.	I believe that online learning mode enhances my learning experience.	378 25.1%	508 33.8%	133 8.8%	484 32.2%	2.35	0.81
4.	Online learning mode increases the quality of learning because it integrates all forms of media (prints, audio and video).	402 26.7%	505 33.6%	126 8.4%	470 31.3%	2.34	0.63
5.	Adopting ICT and online learning mode allows for increased students learning satisfaction	404 26.8%	503 33.5%	125 8.31%	471 31.3%	1.98	0.65
6.	I would be interested in studying courses that use online learning mode.	402 26.7%	498 33.1%	130 8.6%	473 31.5%	2.09	0.75

Source: Field Survey, 2021

Table 3. Assessment of Students skills and Competences in - Using Online Learning Platform

S/N	Items	Very Proficient	Proficient	Fairly Proficient	Not Proficient	Mean ($\bar{X}$)	Standard Deviation (σ)
1.	Basic computer skill e.g., typing and editing.	422 28.1%	590 39.3%	432 28.7%	59 3.9%	2.27	0.68
2.	Advance computer skills(internet use)	406 27.0%	606 40.3%	439 29.2%	52 3.5%	2.43	0.62
3.	Using the website for education skills(screen recording)	411 28.3%	602 40.1%	437 29.1%	53 3.5%	2.25	0.78
4.	Using online tools in education skills, e.g., Skype, web video, YouTube, etc.	361 24.0%	369 24.6	574 38.2%	99 6.6%	2.11	0.43
5.	Designing online content skills e.g., Google form	357 23.8%	465 30.9%	578 38.5%	103 6.8%	2.32	0.52
6.	Online communication skills: social, media (Facebook, Twitter, Email, etc.	370 24.6%	485 32.2%	557 37.1%	91 6.1%	2.69	0.57

Source: Field Survey, 2021

Table 4. Analysis of the readiness for E-Learning

S/N	Item	Yes	No	Mean ($\bar{X}$)	Standard Deviation (σ)
1	Do you have an internet enabled computer?	248 96.9%	8 3.1%	1.03	0.17
2	Do you have access to teleconfrencing facilities?	228 89.1%	28 10.9%	1.11	0.31
3	Have you attended any e-learning creation course?	210 82.0%	46 18.0%	1.25	0.95
4	Have you attended any e-learning facilitation course?	184 71.9%	72 28.1%	1.28	0.45
5	If no,do you wish to attend any e-learning creation/facilitation course ?	205 80.1%	51 19.9%	1.20	0.40
6	Do you use internet to update information in teaching?	243 94.9%	13 5.1%	1.05	0.22
7	Do you think using the online teaching platform is time consuming?	129 50.4%	127 49.6%	1.50	0.50
8	Have you attended any online assesment/grading course?	176 68.8%	80 31.3%	1.31	0.46

Source: Field Survey, 2021

Table 5. Analysis of the Availability of E-Learning Facilities in the University

Facilities/Gadget	Available	Not Available	Mean	S.D.
An internet enabled computer	228 89.1%	28 10.9%	1.11	0.31
Teleconferencing facilities like zoom, google meet, skype etc	218 85.2%	38 14.8%	1.15	0.37
Moderm or router	198 77.3%	58 22.7%	1.23	0.42
Android or I-phone	212 82.8%	44 17.2%	1.17	0.38
Camcoder	146 57.0%	110 43.0%	1.51	1.38
Space e.g a ventilated office	222 86.7%	34 13.3%	1.13	0.34
Infrastructure like Tables and Chairs	241 94.1%	15 5.9%	1.06	0.24
Adequate Electricity	181 70.7%	75 29.3%	1.29	0.46
Generator	127 49.6%	129 50.4%	1.50	0.50
Inverter	84 32.8%	172 67.2%	1.67	0.47
Solar panel	70 27.3%	186 72.7%	1.73	0.45
Digital camera	123 48.0%	133 52.0%	1.52	0.50
Digital scanner	124 48.4%	132 51.6%	1.52	0.50
Portable music device	110 43.0%	146 57.0%	1.65	1.37

Source: Field Survey, 2021

Table 6. Analysis of E-Learning skills and competence

Statements	Never used	Somehow competent	Competent	Expert	Mean	S.D.
Creating word document	5 2.0%	33 12.9%	148 57.8%	70 27.3%	3.11	0.68
Converting word document to pdf	2 0.8%	36 14.1%	145 56.6%	73 28.5%	3.13	0.66
Creating power point slides	17 6.6%	42 16.4%	148 57.8%	49 19.1%	2.89	0.78
Creating voice over power point	45 17.6%	61 23.8%	110 43.0%	40 15.6%	2.57	0.96
Creating data base in micro soft excel for recording marks	16 6.3%	92 35.9%	99 38.7%	49 19.1%	2.71	0.85
Performing simple calculations in MS Excel	31 12.1%	73 28.5%	99 38.7%	53 20.7%	2.68	0.93
Using padlet or Google jamboard	114 44.5%	81 31.6%	43 16.8%	18 7.0%	1.86	0.94
Taking screenshot on your browsing device	12 4.7%	34 13.3%	122 47.7%	88 34.4%	3.12	0.81
Creating Audio files	28 10.9%	52 20.3%	106 41.4%	70 27.3%	2.85	0.95
Creating Video files using screen cast tools.	70 27.3%	91 35.5%	59 23.0%	36 14.1%	2.24	1.73
Design online interactions/games using Socrative, Kahoot, etc.	133 52.0%	72 28.1%	39 15.2%	12 4.7%	1.73	0.89
Creating teaching e-portfolio	59 23.0%	114 44.5%	76 29.7%	7 2.7%	2.12	0.79
Using learning Management systems for content creation e.g., MOODLE, WebCT, Canvas ,Google classroom etc.	44 17.2%	96 37.5%	100 39.1%	16 6.3%	2.34	0.83
Creating online discussion group.	19 7.4%	80 31.3%	115 44.9%	42 16.4%	2.70	0.83
Using search engines like Google, etc.	17 6.6%	28 10.9%	124 8.4%	87 34.0%	3.09	0.84
Creating learning based web pages /site	61 23.8%	48 18.8%	92 35.9%	55 21.5%	2.55	1.08

Source: Field Survey, 2021

Table 7. Analysis of the Challenges Faced When Using the Online Teaching Platform

Statement	SA	A	SD	D	Mean	S.D.
Consistent power failure	58 22.7%	156 60.9%	20 7.8%	22 8.6%	2.10	1.13
Lack of crop of technicians to maintain e-teaching gadgets	36 14.1%	180 70.3%	27 10.5%	13 5.1%	2.21	2.05
Lack of alternative power supply	55 21.5%	160 62.5%	22 8.6%	19 7.4%	2.01	0.77
High cost of maintenance of e-teaching equipment	33 12.9%	199 77.7%	15 5.9%	9 3.5%	2.0	0.57
Acute shortage of ICT specialist	40 15.6%	152 59.4%	48 19.2%	16 6.3%	2.27	2.07
Frequent network failure	81 31.6%	116 45.3%	48 18.8%	11 4.3%	1.95	0.82
Lack skill and knowledge operate e-teaching facilities	34 13.4%	110 43.0%	21 8.2%	91 35.5%	2.67	1.10
Inadequate e-teaching facilities in my institution	48 18.8%	124 48.4%	41 16.0%	43 16.8%	2.31	0.96
Lack of confidence In using e- teaching facilities	27 10.5%	93 36.3%	36 14.1%	100 39.1%	2.89	1.61
Lack of technical support required to set up e-teaching facilities for instructional delivery	37 14.5%	138 53.9%	51 19.9%	30 11.7%	2.29	0.86
Inadequate computer skills for use of e-teaching	25 9.8%	113 44.2%	37 14.5%	81 31.6%	2.76	1.58
Poor internet access and connectivity in my institution	54 21.1%	148 57.8%	30 11.7%	24 9.4%	2.09	0.83
Fear of damaging the e-teaching system during usage	26 10.2%	62 24.2%	63 24.6%	105 41.0%	2.96	1.03
Lack of knowledge to prepare e-teaching lessons	12 4.7%%	74 28.9%	84 32.8%	86 33.6%	2.95	0.90
Insufficient time for e-teaching lesson preparation	38 14.8%	139 54.3%	55 21.5%	24 9.4%	2.25	0.82

Source: Field Survey, 2021

The item 'Solar panel' is ranked highest by the mean, (Mean = 1.73, S.D. = 0.45), while the item 'Infrastructure like Tables and Chairs' is ranked lowest by the mean, (Mean = 1.06, S.D. = 0.24).

The item 'Converting word document to pdf' is ranked highest by the mean, (Mean = 3.13, S.D. = 0.66), while the item 'Design online interactions/games using Socrative, Kahoot, etc.' is ranked lowest by the mean, (Mean = 1.73, S.D. = 0.89).

Research Question 4: What are the challenges faced by lecturers during the use of online teaching platform?

The item 'Fear of damaging the e-teaching system during usage' is ranked highest by the mean, (Mean = 2.96, S.D. = 1.03), while the item 'Frequent network failure' is ranked lowest by the mean, (Mean = 1.95, S.D. = 0.82).

4.1 Discussion

The main purpose of this study was to assess the readiness of universities and undergraduate attitudes to online teaching mode using Obafemi Awolowo University as case study. The research revealed that there is a considerable level of readiness among the student towards using online learning platform as most of the student respondents agree to the questions asked regarding their readiness towards using online learning platform. Looking at the study carried out by Shilpu, Day, and Kavya (2020) in there examination of the attitude of undergraduate towards e-learning during the pandemic crisis in India, one would notice a striking similarity as the results shows that students have favorable attitude towards online learning in order to keep their academic interest and growth, however this was not the case in the study carried out by Abbas, Ayoub,Malik nd Memon [17] as a high number of the students showed negative attitude to online learning due to lack of appropriate e-learning facilities in the school.

Furthermore this research revealed that undergraduates in Obafemi Awolowo University, Ile Ife ,Osun state Nigeria are only fairly proficient in the use of ICT facilities as indicated by the response given to the questions on skills and competence in using online platform, this also constitute one of the challenges among others faced by the students. This also conforms with the challenges noted by Bekzek, Zagazzek, Bezezek et al. (2020) in their study on perspective of e-learning on students during Covid crisis in Poland.

As regard the readiness of university, the study revealed that the University is ready to adopt e-teaching as required facilities is moderately available as deduced from the responses supplied. However on the aspects of skills and competence, there seem to be challenges.

In answering the last research questions on the perceived challenges facing online teaching and learning, the research revealed that undergraduates despite having favourable attitude towards online learning however face several challenges, this is deduced from the responses gathered on field, the overall mean tend towards agree, that is majority of the respondents agreed to all the challenges, these include unstable network connectivity, high cost of data, erratic power supply and many more. The issue of high cost of data is also evident in the study of Dube [20] in his investigation on the challenges faced by students in South Africa. The result show that the biggest challenge facing online education is internet connectivity which respondents claim to be very expensive, this is not restricted to the students alone, it is revealed that lecturers also face the challenge of high cost of data. In addition to the challenges faced by lecturers are consistent power failure, frequent power failure, lack of skill and knowledge to operate e-teaching facilities and many more [21].

5. CONCLUSION

Based on the findings of the study it was concluded that since the students and the lecturers have skills and competences to operate e-learning facilities, efforts must be made by responsible authorities to provide internet support services for students in every location on campus and stable internet facilities should be provided for lecturers in their offices and could be extended to the University residential quarters. The study equally stressed the need for universities to put in place measures to be able to adequately and promptly respond to future emergencies such as the pandemic that led to the closure of Nigerian public universities for about eight months in 2020. It was evidently clear that Nigerian universities were not prepared for the very challenging situation unlike universities in other nations who were able to switch to the online mode immediately there was the need to shut down educational institutions in response to the global pandemic.

6. RECOMMENDATIONS

The online learning mode has proved useful especially in the era of the pandemic, also it provides convenience for both students and lecturers. Hence, lecturers should be trained on the use of online learning applications and internet accessibility should be provided for them as well. Also, researchers should pay more attention on university's readiness in order to draw or call the government attention to provision of E-learning facilities, training of university personnel on the use of ICT gadgets.

The challenge of power failure should be addressed by providing alternative sources of power supply. The government and parents should endeavor to help students acquire gadgets or alternative channel of learning should be provided for students who do not have gadgets to run the online learning system.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

CONFERENCE DISCLAIMER

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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