AN ASSESSMENT OF THE ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) ON THE AWARENESS OF COVID-19 IN THE UNIVERSITY OF BENIN.

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ABSTRACT

This study aimed at assessing the role of information and communication technology (ICT) on the awareness of covid-19 in the University of Benin. The study adopted the survey research design and the questionnaire was the instrument of data collection. A simple random sampling technique in which a sample of one hundred and Eight (108) respondents were selected among Students and Staff of the University of Benin was used for this study. The data collected were analyzed and it led to the following conclusion that ICT tools that are moderately available in University of Benin are radio, internet facilities, public address system, computer sets and sound strip projector. Another frequently used ICT tool among students is mobile phone. There is a high-level of awareness of COVID-19 among students and staff in the University of Benin. Most staff and students are competent with the use of ICT tools in getting information. The results further indicated that ICTs tools especially the phone has helped them to access information. It is recommended that government should invest in the acquisition of more information and communication technology gadgets in public institution owing to the fact that it is indispensable in this digital era. Lastly, Information and communication technology should be recommended in other sectors like governance, business and our daily activities.

Keywords: Information and Communication Technology, Assessment, Covid-19,

INTRODUCTION

The entire world faced the ravaged effects of the COVID-19 pandemic in 2019,Covid19 which became a global transnational health threats to the entire global. By June 15, 2020, the pandemic spread to more than 200 countries, infecting more than seven million people, as it turned into a global health crisis causing fundamental societal changes. Not only is this crisis challenging the public health system in each country, but it is also, more broadly, shaking up the social order. People's daily lives are changing under stay at home orders and many are overwhelmed with information. At its peak, nearly all countries of the world were forced into a social lockdown that prevented normal social, economic and academic activities in the cities, towns and villages to take place.

Castells, (2000) posited that today's global network society, social structure and organizational arrangements are largely made up of information networks powered by informational and communication technologies ICTs.

Are &Ekum, (2020) traced the origins of the infectious disease caused by the novel corona virus was detected in Wuhan City, Hubei Province of China in December 2019 and the causative virus was isolated on 7th January 2020. Gradually, the deadly virus was being exported to other places around the world. The virus spread from China to other part of the globe affecting more than 163 countries in mid-March, 2020. As the disease spread, it made its way to Nigeria on 27th February 2020 when the index case was detected. The global emergence and spread of the corona virus have been well described with expository and exploratory data analysis that show that the pandemic ravaged virtually the entire globe.All facets of the global economy faced the impact resulting in a sudden economic recession. Governments around the globe took proactive steps to curtail the spread of the novel corona virus.

These guidelines limited what activities can be engaged in and to what extent. In Nigeria for instance, several regulations and advisories were issued by governments at all levels and agencies/authorities such as the Presidential/States Task Force on Covid-19, National Centre for Disease Control (NCDC), Federal/States Ministries of Health tailored towards curtailing and containing the pandemic, These regulations affected the mode of education dissemination in the country as the Federal Ministry of Education issued a notice of closure of all schools, colleges, religious and educational institutions.

Adedigba (2020) opined that to continue learning amid the Covid-19 pandemic lockdown, several tertiary institutions across the globe including universities in Nigeria especially University of Benin (UNIBEN) shifted to online learning and the use of ICTs platforms such as WhatsApp, Telegram, Google class, Zoom, and Chrome LMS in creating awareness of the presence and ravaging effects of the novel corona virus in all facets of our national life. There is no doubt that the unexpected closure of tertiary institutions due to the Covid-19 pandemic has affected the traditional methods employed by higher institutions of learning in information dissemination.

There is the urgent need to embrace a more sophisticated technological mechanism in order to reach out to broader members of the academic community. However, many academic institutions adapted so quickly with information and communication technology in order to create awareness for its academic communities. They provided online services and organized access to e-resources so that students can continue to read and learn without disruption. In an attempt to give an opportunity to learners while the Covid-19 lasted indefinitely, ICTs platforms were made available to address the issues of lock down. Many educational institutions in the country started, for the first time, using various information alternatives platform including Google Classroom, YouTube videos, social media such as WhatsApp, email, dedicated institutional portals, etc. to deliver their curricula partly on the internet (online) and offline. Monotechnic, polytechnics,

universities, and other higher educational institutions immediately embraced these new innovations. The technologies could include the use of gadgets like Television, Radio, Smart Phones, Computer and network hardware, satellite system, and various services and appliances with them as video-conferencing and distance learning facilities. Therefore, Information and Communication Technology is a broad concept that covers all other form of technology that is used for communication or interaction. Its use cannot be overemphasized when it comes to health emergency situations alike.

CONCEPTUAL FRAMEWORK.

THE CONCEPT COVID-19

Corona virus disease 19 (COVID-19), originated at Wuhan city of China in early December 2019 has rapidly widespread with confirmed cases in almost every country across the world and has become a new global public health crisis. The etiological agent was designated as Severe acute respiratory distress syndrome corona virus 2 (SARS-CoV-2). The virus was originated in bats and transmits through respiratory droplets and surface contact and then by touching mouth, eyes, and nose.

The World Health Organization coined the term COVID-19 and declared this novel corona virus disease as a pandemic on March 11, 2020. The virus is highly contagious and the incubation period ranges between 2-14 days. The virus infects the human respiratory epithelial cells by binding through Angiotensin-Converting Enzyme 2 (ACE2) receptors. Many infected people are either asymptomatic or develop a mild respiratory illness. The major clinical symptoms of the disease are fever, non-productive cough, fatigue, malaise, and breathlessness. Severe illness such as pneumonia, acute respiratory distress syndrome (ARDS), and death occurs in the elderly and patients with comorbid conditions. The case fatality rate is estimated to be 2-3%.

The rapid surge was observed in new cases and COVID-19 related deaths outside of China since the beginning of March-2020. As of June 8, 2020, more than 7 million confirmed cases and 400 thousand deaths were reported from 213 countries and territories. The disease is mainly diagnosed by the detection of viral RNA in nasopharyngeal swab or Broncho-alveolar lavage (BAL) by reverse transcriptase-polymerase chain reaction (RT-PCR). Treatment is basically symptomatic and supportive. . Importantly, increasingly evidence showed sustained human-to-human transmission, along with many exported cases across the globe. The clinical symptoms of Covid-19 patients include fever, cough, fatigue and a small population of patients appeared gastrointestinal infection symptoms.

CONCEPTUALIZING INFORMATION AND COMMUNICATION TECHNOLOGY (ICT).

Information and communication technology is a broad concept that can be examined from different perspectives. Beyond the general view of studying it as a subject or course at any institution or profession it covers software development, database management, web designing, internet, signal development, mobile application development computer programming and lot more. Information communication technology is a broad concept that comprises of three significant terms

namely; information, communication and technology respectively.

Dretske cited in Bates and Marcia (2010) defines information as a commodity that is capable of yielding knowledge, and what information a signal carries is what is what we learn from it, information as symbolic words that convey absolute and technical knowledge no matter the nature and forms of presentation of symbol. We can therefore say that information is the building block of knowledge.

Technology is simply application of scientific knowledge for practical purpose. technology as both discipline and management techniques used in handling and processing information and their applications, computers and their interaction with man and their associated social economic and cultural matters. information technology which uses computer to gather, process, store, protect and transfer information. He also posited that it will be unimaginable that to work on a computer without connecting it to a network. Hence, it is called information and communication technology (ICT). Haven examined the various concept, we are going to clarify concept of information and communication technology.

Ratheeswari (2018) opined that Information and communication technology refers to technologies that provide access to information through telecommunication. Information and communication technology (ICT) is similar to information technology but focuses primarily on communication technology. These include the internet, wireless network, cell phones and other communication mediums. Hence, information and communication technology is a hardware equipment organizational structure, and social value by which individual connect, process and exchange information.

Also contributing, Ogunsola and Aboyade (2005) said, Information and communication technology emphasize both the electronic aspect and functionality of Information. Information and communication technology (ICT) is an electronic based system of information transmission, reception processing and restively which has drastically changed the way we think, the way we live and the environment in which we live. Igbafe (2002) on his part defined ICT as a computer and other forms of technology that both share and generate information which can be transmitted widely by electronic means. ICT transmit or disseminate information to audience for different purposes, but in the this case, the aim is to create awareness, and their facilities cover internet service provision, telecommunication equipment and services, media and broadcasting

ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGY IN COVID-19 AWARENESS.

Bello and Aghadiuno (2019) posited that information dissemination is the channel by which facts are linked to the appropriate individual seekers and organizations. All these may not be achieved without the necessary technology in place. Uses of ICT by librarians or academic institutions to disseminate Covid-19 information, the hard hit from the Covid-19 pandemic, public services have been paralyzed; academic activities and classes have been restricted online due to the closure of colleges. Community members and the public need information on how to protect themselves

against the corona virus. In this view, information managers and academic institutions have devised a means to engage in controlling the situation through effective dissemination of relevant health information on Covid-19.

Public health education and response to Covid-19 Public health education and risk communication campaigns on corona virus commenced in earnest with the reported index case of Covid-19. Both conventional and social media, including WhatsApp, Twitter, and Facebook, have assisted in disseminating updates on the virus. The NCDC provides regular updates on the outbreak with support from major telecommunication operators in the country.

Additionally, there are sensitization activities across some streets in the country by the National Orientation Agency (NOA), non-governmental organizations (NGOs), faith-based organizations (FBOs), and other development partners. The NCDC regularly publishes guidelines on the prevention of corona virus (social distancing, safe hand washing, maintenance of personal and respiratory hygiene, etc.) as well as a directory of help lines for each state. Messages on the Covid-19 infection were equally translated into local languages to reach the general Nigerian population. Use of ICTs tools to disseminate Covid-19 information, due to the hard hit from the COVID-19 pandemic, ICTs have helped in no small measure to restricted learning to online due to the closure of colleges. Community members and the public need information on how to protect themselves against the corona virus. In this view, ICTs have been highly engaged in controlling the situation through effective dissemination of relevant health information on Covid-19.

METHODOLOGY

This study adopted the survey research design, and this allowed for the usage of both primary and secondary sources of data gathering. The primary source involved the use of questionnaire which covered the demographic details of respondents while the other section covered the respondents' awareness of Covid 19 via the usage of ICT in the University of Benin. The secondary sources of data collection covered printed materials, books, journals, internet and other materials considered relevant to this study. The data collected from both the primary and secondary sources were carefully analyzed, scrutinized and arranged to attain the objective of the study.

DATA PRESENTATION

Indeed, a total of one hundred (108) questionnaires were issued out to the different students and Staff and same number (108) were retrieved as shown in Table 1. Also, the study analysis is based on the 108questionnaires returned as shown in Table 1. The data generated from the questionnaires in respect to *An Assessment of the Role of Information and Communication Technology (ICT) on the Awareness of Covid-19 in the University of Benin* were summarized and analyzed as presented in the tables below (Table 2).

DEMOGRAPHIC CHARACTERISTIC OF RESPONDENTS

This section concentrates on the information relating to the demographic (personal) characteristics of individual respondents as answered in Section A, 1=2 of the questionnaires.

TABLE 1: GENDER OF RESPONDENTS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MALE	74	68.5	68.5	68.5
	FEMALE	34	31.5	31.5	100.0
	Total	108	100.0	100.0	

Source: Authors' computation

Table 1 above indicates that out of the 108 respondents, the males are 74 (representing 68.5%), while the females are 34 (representing 31.5%). The analysis presented above shows that majority of the sampled respondents are males as it has the highest frequency.

TABLE 2: AGE OF RESPONDENTS

S/N	Age	Frequency	Percent	Valid Percent	Cumulative Percent
1	18-25years	47	43.5	43.5	43.5
2	26-35years	35	32.4	32.4	75.9
3	36-45years	11	10.2	10.2	86.1
4	46 and above	15	13.9	13.9	100.0
	Total	108	100.0	100.0	

Source: Authors' computation

Table 2 above indicates that out of the 108 respondents, 47 (representing 43.5%) are within the age range of 18-25 years, 35 (representing 32.4%) are within the age range of 26-35 years, 11 (representing 10.2%) are within the age range of 36-45years, while 15 (representing 13.9%) are within the age range of 46 years and above. The analysis presented above shows that majority of the sampled respondents are within the age bracket of 18-25 years as it has the highest frequency score.

TABLE 3: DISTRIBUTION OF RESPONDENTS BY THEIR YEARS OF ICT EXPERIENCE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5years	24	22.2	22.2	100.0
	6-10years	67	62.0	62.0	62.0
	11-15years	8	7.4	7.4	69.4

	21years and above	9	8.3	8.3	77.8
	Total	108	100.0	100.0	

Source: Authors' computation

Table 3 above indicates that out of the 108 respondents, 24 (representing 22.2%) have ICT experience of 1-5 years, 67 (representing 62.0%) have ICT experience of 6-10 years, 8 (representing 7.4%) have ICT experience of 11-15 years, while 9 (representing 8.3%) have ICT experience of 21 years and above. The analysis presented above shows that majority of the sampled respondents have ICT experience of 6-10 years as it has the highest frequency score.

TABLE 4: POSITION OF RESPONDENTS

Position	**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Staff	34	31.5	31.5	31.5
Student	74	68.5	68.5	100.0
Total	108	100.0	100.0	

Source: Authors' computation

Table 4 above indicates that out of the 108 respondents, 34 (representing 31.5%) are staffs, while 74 (representing 68.5%) are students. The analysis presented above shows that majority of the sampled respondents are students as it has the highest frequency.

TABLE 5: ICT-USAGE FREQUENCY

	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Frequent	60	55.6	55.6	55.6
Occasionally	48	44.4	44.4	10 0.0
Total	108	100.0	100.0	

Source: Authors' computation

Table 5 above indicates that out of the 108 respondents, 60 (representing 55.6%) frequently make us if ICT tools, while 48 (representing 44.4%) occasionally make use of ICT tools. The analysis presented above shows that majority of the sampled respondents make use of ICT tools more frequently.

Summary of Result and Discussion

Table 6: Frequency of ICT tools for information dissemination in University of Benin

Key:

HA: Highly Available

MA: Moderately Available

NA: Not Available

Research Question: Does University of Benin have sufficient ICT tools for information dissemination?				
Statement	HA	MA	NA	Mean
Radio	17 (15.7%)	61 (56.5%)	30 (27.8%)	2.12
Internet Facilities	36 (33.3%)	52 (48.1)	20 (18.5%)	1.85
Public address system	38 (35.2%)	64 (59.3%)	6(5.6%)	2.69
Electronic notice board	2 (1.9%)	30 (27.8%)	76 (70.4%)	1.70
Computer sets	34 (31.5%)	66 (61.1%)	8 (7.4%)	1.76
Mobile Phones	90 (83.3%)	14 (13.0%)	4 (3.7%)	1.20
Television set	2 (1.9%)	16 (14.8%)	62 (57.4%)	2.12
Sound strip projector.	10 (9.3%)	50 (46.3%)	48 (44.4%)	2.35

Source: Authors' computation

From table above, most of the respondents affirmed that the ICT tools Moderately Available in University of Benin are Radio, Internet facilities, Public address system, computer sets and sound strip projector having mean scores of 2.12, 1.85, 2.69, 1.76 and 2.35 respectively. The Highly Available ICT tool is mobile phone with mean score of 1.20.

Research Question: What is the level of awareness of COVID-19 among students and staff in University of BENIN?					
Statement	SA	A	D	SD	Mean
COVID-19 is a global pandemic	44 (40.7%)	62 (57.4%)	0	2 (1.9%)	1.63
COVID-19 virus is transferred through respiratory droplets and surface contact.	32 (29.6%)	60 (55.6%)	16 (14.8%)	0	1.85
Some COVID-19 symptoms are similar to Malaria symptoms	24 (22.2%)	58 (53.7%)	24 (22.2%)	2 (1.9%)	2.02

Source: Authors' computation

From table above, most of the respondents agreed that there is a high-level awareness of Covid-19 among students and staff in University of Benin. Covid-19 is a global pandemic had the highest frequency.

Research Question 5: Has ICT been able to create enough awareness of. COVID-19 in the University of Benin?					
Statement	SA	A	D	SD	Mean
ICT promote the spread of COVID-19 information	48	40	10	10	2.02

	(44.4%)	(37.0%)	(9.3%)	(9.3%)	
The COVID-19 information I got through ICT are accurate	20 (|18.5%)	72 (66.7%)	16 (14.8%)	0	2.02
ICT made dissemination of COVID-19 related information faster in University of Benin	42 (38.9%)	56 (51.9%)	10 (9.3%)	0	2.02
ICT has been able to meet the health information Deficit of the staffs and student in UNIBEN.	24 (22.2%)	60 (55.6%)	24 (22.2%)	0	2.02

Source: Authors' computation

From table above, most respondents agree that ICT have been able to create sufficient awareness of Covid-19 in the University of Benin, with "The Covid-19 information I got through ICT are accurate" having the highest frequency.

DISCUSSION OF FINDINGS

The results from the data analyzed states that the ICT tools moderately available in University of Benin are radio, internet facilities, public address system, computer sets and sound strip projector. The highly available ICT tool is mobile phone. This finding is consistent with the study conducted by Obahiagbon and Osahon, (2014) that only photocopying machine (100%) and telephone (100%) are available and adequately used while other facilities are at different level of availability and use in enhancing teaching and learning in tertiary institutions in Benin metropolis of Nigeria. The internet (online newspapers and social networks) is one of the principal sources of Covid-19 information during the pandemic (Alsaif et.al, 2021).

The Second finding shows that there is a high-level awareness of Covid-19 among students and staff in University of Benin. Covid-19 as a global pandemic has the highest frequency. Similar study indicates that the undergraduate medical students of Trinidad have scholarly knowledge, heightened awareness, and a positive attitude toward COVID-19 (Umakanthan et. al, 2022). Alsaif et.al,(2021) carried out a study and discovered that 59% of respondents had good knowledge of Covid-19 prevention (total score ≥ 82.7%). The study also shows a significant association between a good level of knowledge and being housewives, employed, and divorced; furthermore, most of these groups in our study were in the >35 years age group, which appeared to demonstrate a good level of good knowledge.

The survey proves that most respondents agree that they are competent with the use of ICT tools in getting information with "I am confident when using ICT tools" having the highest frequency with mean score of 1.69 and "I can fix basic problem with ICT equipment" having the lowest frequency.

The table reveals that most of the respondents agree that the challenges facing the application of ICT for creating awareness owe to the facts that ICT tools are few, poor power supply, high cost of buying and maintaining ICT tools, as well as the lack of interest in the use of ICT. It is worthy of note that most respondents agree that ICT have been able to create enough awareness of. Covid-19 in the University of Benin, with "The Covid-19 information I got through ICT are accurate" having the highest frequency.

Conclusively, ICT have been able to create enough awareness of. Covid-19 in the University of Benin, with "The Covid-19 information I got through ICT are accurate" having the highest frequency.

CONCLUSION

The role of Information and Communication Technology in awareness of Covid-19 Information cannot be overemphasized. These have led to the following conclusion that ICT tools moderately available in University of Benin are radio, internet facilities, public address system, computer sets and sound strip projector. The highly available ICT tool is mobile phone. There is a high-level awareness of Covid-19 among staff and students of University of Benin. Covid-19 is a global pandemic had the highest frequency. They are competent with the use of ICT facilities in getting information with "I am confident when using ICT tools" "I can fix basic problem with ICT equipment" having the lowest frequency. The challenges facing the application of ICT for creating awareness owe to the facts that ICT tools are few, poor power supply, high cost of buying and maintaining ICT tools, as well as the lack of interest in the use of ICT. ICT have been able to create enough awareness of. Covid-19 in the University of Benin, with "The Covid-19 information I got through ICT are accurate" having the highest frequency. ICT have been able to create enough awareness of Covid-19 in the University of Benin, with "The Covid-19 information I got through ICT are accurate".

RECOMMENDATIONS

Based on the findings of the study, the following recommendations were made:The government should invest in the acquisition of information and communication technology tools in public institution owing to the fact that it is indispensable in this digital era. Refresher programmes should be organized regularly in tertiary institution to enlighten and motivated the people on the need to apply information and communication technology in their day to day activities. Lastly, Information and communication technology should be recommended in other sectors of our National life.

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