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# Accessing the Impact of E-Learning on Tertiary Education Management Amidst the Global Wave of Covid -19 Pandemic in Nigeria: Issues and Prospects

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#### **Abstract**

Tertiary education is an important tool for jumpstarting development in almost all nations of the world. It serves as a lever for other sectors of the economy, with far-reaching imperativeness aimed at economic, technological, and governmental growth. The unfortunate outbreak of Coronavirus in 2019 has had devastating effects on every sector of the economy, from which tertiary education is not exempted. E-learning naturally becomes an option in order to grapple with and cope with the changes occasioned by the outbreak of the COVID-19 pandemic. This study is an attempt to logically investigate the nature and dynamics of the challenges pursued by the adoption of the e-learning method as an avenue for coping with the enormous challenges associated with the effective delivery of tertiary education in emergencies. This is more expedient because e-learning has become a veritable tool for the global advancement of tertiary education. Mixed date method research was employed in the conduct of this research, and a sum of fourth (40) forms was distributed to the target audience, and the hypothesis was tested using chi-square. The findings of the study reveal that e-learning has aided the continuation of education amidst the SARS-19. The paper recommends that both stakeholders in the private and public education sectors of Nigeria should provide conducive e-learning facilities amidst and beyond covid -19 pandemic in Nigeria.

Keywords: Education, Covid-19, E-learning



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#### INTRODUCTION

The concept "electronic" has been gaining momentum over the years, as its acronym "e" is being used and added as a prefix in several fields of studies which include concepts like e-governance, e-banking, and e-learning. The marriage between education and information communication technology (ICT) can be termed "e-learning" as the application of electronic means to learning makes the learning process faster, accessible, convenient, and retrieval at any time and destination (Wolfinger, 2016). Education all over the world today has been given cognizant attention as it serves as the catalyst for even development. To the educationist, when information, forecast, or inquiry is to be made about the future of any country, the posited question to be asked should be directed toward the quality of education in that country in a simple, unambiguous, and unequivocal statement. Education is so essential that its multiplier effects affect everyone either positively or negatively. It is collectively felt and shared by everyone, including the educated and the uneducated. That is why the United Nations stressed that education is a basic general requirement that every human being is expected to benefit. (Dorathy et al., 2009).

E-learning is not a new development or a new concept around the world. However, its applicability in Nigeria and other developing nations is very low due to several challenges and attitudes toward education in Africa. E-learning has brought forth new dawn in the learning sector for learners, thus bringing in new technology and expertise to be effective Corresponding author

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(Romiszowski, 2004). Notwithstanding these challenges, the adoption of this mechanism becomes a basic necessity as the continuous lockdowns of institutions of learning become a long-time issue, and no certainty of a fixed time of returning to class and no alternative means to learning was put in place. Conferring to the UNESCO report (2020), the shutting down of places of learning has an effect on about 91% of the total learning population around the globe. Therefore, the desire to go back to school, coupled with the anticipated negative effects of school closures on the nation's economy, forced some tertiary institutions to go on e-learning systems for them to meet up with the world demand for education and continuation of the learning process. Going by this new system, there must be several challenges that will accompany this process since the system in place prior to the emergence of covid-19 does not provide for these techniques. The e-learning scenario has effects on both the lectures and the student side because some of the teaching staff of this public university are also not acquainted with knowledge transfer in relation to giving online classes and monitoring student presence using several e-learning facilities like zoom, projector, and video classes. For example, the university of Ilorin made it mandatory for each department to provide some lecturers who will undergo training in this field of e-learning which will also, in turn, teach their fellow lecturers at departmental levels.

Nigeria had several problems confronting its educational sector ranging, including the problem of poor remuneration, which has been the number one reason for the prolonged strike actions by university lecturers. Morenike (2003) posited that after the strike in 1989, the university system was crippled and characterized by inefficiency. Also, the budgetary allocation to the education sector is dismal as compared to other sectors and countries. The problem of funding has been a major stumbling back in the educational sector in Nigeria (Williams, 2011). Other problems include poor infrastructural facilities and endemic corruption practices. In the words of Yekini (2013), he points out that a lake of inconsistency in policies, issues of brain drain, overwhelming strike action, inadequate and outdated instructional materials, and gross corruption serve as the major setbacks to education development in Nigeria. However, the new cankerworm to the education sector in Nigeria and the world all over as of 2019 is a public health-related issue with its antecedent name as Coronavirus or COVID-19.

The problems encountered in adopting e-learning are numerous. These challenges include a lack of technical know-how, poor internet service, high cost of data subscription, and poor infrastructural facilities, among others. It is against this background that we make a move to conduct a study on accessing the impact of e-learning on educational progress amidst the covid-19 pandemic using the university of Ilorin Nigeria as a case study. The issue of the COVID-19 pandemic is becoming a lingering issue as it is becoming more and more complicated. The only development recorded was its changing waves and some vaccination against the virus but no single generally accepted cure for it at present. The need for an alternative means of learning now becomes necessary and mandatory if learning is to be continued. The problem of stable internet service has been a great obstacle to the effectiveness of this learning process. People in the urban area are making complaints talk - less of people living in the rural areas. Secondly, the supply of electricity in Nigeria is very poor, which makes it difficult to engage in constant online classes. The rate of data subscription is also exorbitant for a student to afford. There are also complaints about the need for more technical know-how on the side of the lectures and students: also, the need to monitor attendance and attentiveness in a face-to-face class is also lowest to ebb. Science students also find it difficult to conduct research since the need for a laboratory test is essential and not applicable online, alongside many other problems.

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### **Study Aims/Objectives**

- (i) To survey the sways of e-learning on educational development amidst Coronavirus.
- (ii) To examine the effects of the COVID-19 pandemic on the educational sector.
- (iii) To assess the militating factors against e-learning in Nigeria.

## **Research Questions**

- (i) Does e-learning have an impact on educational development amidst SARS-19 in Nigeria?
- (ii) What are the effects of the Coronavirus on Nigeria's educational sector?
- (iii) What are the challenges of e-learning in Nigeria?

# **Research Hypotheses**

- H₀- E-learning has no positive impacts on educational development amidst Covid -19.
- H<sub>1</sub>- Covid- 19 pandemic has no effects on the educational sector in Nigeria.
- H<sub>1</sub>- There are no challenges to e-learning processes in Nigeria.

#### LITERATURE REVIEW

It is important at this juncture to review some works of scholars in relation to the concept of education, covid-19, and e-learning, so one has to have a complete understanding and thought about the research concept or variables. The genesis of the term education is coined after the words "Educare" and "educere" (Amaele et al., 2011:6). Meaning to teach, guide and train. In the words of Dewey (1944), education holistically denotes a medium in which hopes and traditions of a particular culture of people are learned and passed from one epoch to another. To him, learning entails the transfer of culture, norms, beliefs, and customs from one generation to another. Accordingly, Fafunwa (1974) view education as the transfer of positive characters, orientation, morals, and vibes from the aged or middle-aged to the growing population to guarantee their easy living and comparability with other children in other parts of the world. Going further, Amaele et al. (2011:7) asserted that education is perceived as a form of general transformation in the life of individual children in accordance with world standards by the means and usage of effective and efficient mechanisms putting into cognizance individual skills and desire for the purpose of, competing, partaking, and contributing towards societal good. However, education entails the process of transferring or acquiring knowledge, skills, abilities, and behavioral attitudes from one person to another or to the general public for the purpose of exhibiting that quality and living a better life.

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The emergence of the deadly virus called Covid -19 was evident in the month of December year 2019. The ailment was noticed in the Hubei region, a location in China. The disease was given a laboratory name of SARS-19, and the infection's name has been referred to as Coronavirus or COVID-19 (WHO, 2020). Due to the nature of the disease, it has the ability to be carried in the air. This feature made it possible for the disease to have been fully flagged across several cities in not less than four continents, precisely in Asia, Europe, and the United States of America (UNICEF, 2018). The speed at which this infectious disease has been recorded among different countries of the world and the rate at which people are giving up the ghost have made it an issue of world importance. These scary events made it to be declared a pandemic on the 11th of March 2020 by the world health's biggest body known as the World Health Organization (WHO), an umbrella under the United Nations organization (WHO, 2020). As of March 2022, there have been over 468 million confirmed cases, and 6 million deaths have been reported globally (WHO, 2020). For the case of Africa, despite the fact that it has not been as devastating as in other continents of the world, as of 20 March 2022, the total number of cases recorded was 8,167,677, with total death of 169,951 (Africa CDC, 2022). Coming down to Nigeria, the case study for this research paper, the infectious disease was firstly verified in an Italian returnee to Lagos, Nigeria, on the 25th of February 2020. As of Thursday, 21st of April, 2022, samples tested were 5.036,813, confirmed cases were 255,670, actives cases were 2,653, discharge cases were 249,874, and the death recoded sum up at 3,143 with Lagos, Abuja Rivers, and Kaduna recording the highest number of cases among the thirty- six states of the country (NCDC, 2022).

Just as many other concepts in social sciences are subject to various definitions, is the concept of e-learning. Oblinger and Hawkins (2005) objected to this that there is no consensus among scholars as to the general meaning of the concept. However, Abbad et al. (2009) stated that the concept of E-learning portrays knowledge shared or transferred through electronic or wireless means. In other words, Fry (2001) asserted that distance learning requires the availability of wireless network services and other electronic devices to aid learning and learners. Going further, Hedge and Hayward (2014) posited that electronic base learning requires a critical thinking method in the process of disseminating information while providing a conducive interactive ecology for every learner at a specific location and time by means of internet and technology-based materials. In addition, OECD (2005) defined distance learning as a learning process that makes use of wireless service in different forms of the learning process in other to facilitate and complement the learning process mostly at the tertiary education level, so it has to complement the traditional learning method or adopt the two methods. Going by this definition, the application of both the traditional and e-learning process is also termed e-learning. Lastly, Eze et al. (2018) stressed that e-learning deals with the general inculcation of modern-driven technologies into the learning process of a nation.

### **Categories of E-learning**

#### 1. Text driven

The text-driven e-learning process is simple in nature, and it does not require more ambiguousness in operating. It entails reading text and graphic and audio voice and test questions

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#### 2. Interactive

The interactive method is more similar to the text-driven the difference is only the highness of graphics and charts, and mostly there are interactive sections

### 3. Simulation

The simulation method requires more technical knowledge. If possible, training it includes both the attribute of text and interactive method with other new properties of it.

### **Merits Of E-Learning**

- a. The development of e-learning has increased and made knowledge easily accessible to everyone, no matter its destination
- b. E-learning has made the availability of materials and content available always, unlike the traditional class in which the class cannot be reply or held back once it has been done
- c. The process of e-learning is not subjected to discrimination since there is no direct contact, and it also helps students to be free to interact and ask questions of their choice without being shy or scared
- d. It has saved many people's costs of transportation and moving from one part of the world to another in search of knowledge to say it cost-effective
- e. It has also created an easy avenue to pass information and message to students in a convenient manner.

#### **De-Merit Of E-Learning**

- a. It has increased the rate of plagiarism, copyright violation, and exam-malpractices
- b. It has increased the rate of indiscipline among students
- c. Health problems such as eyes and ears problem are associated with the process of learning
- d. It has decreased the rate of human relations carried out by institutions of learning
- e. In case of an unclear concept, it had to get a clearer picture or idea of the event or concept

#### **Underpinning Theory**

The word theories refer to individual assertion on how they feel or view their life experiences (Halvorson, 2002). The application of technology to the education sector has also made a significant impact on it easy access, less effort, less cost, and less labor as it has been applied in other spares of lives. Adopting wireless learning into the educational system has been the game of the day by many institutes of learning. (Yang & Arjomand, 1999). Coiro et al. (2008: 4) posited that modern devices have been incorporated into the learning environment with the aim of proving effective learning methods. The adoption of technology into education played an active role in the widening of learning using inclined technological instruments, tools, mediation, etc. this theory pointed out the potentiality of the usage of technology in the process of acquiring new knowledge through electronic devices as propelled the digitalization and advancement of the learning sector, (Engestrom, 1987). The race to get acquainted and familiar with information communication technology (ICT) has been at the forefront by both developed and developing nations in conducting their affairs. It has been employed by Japan to carry out its virtual convocation ceremony using robotics (Kacerauskas & Kusaityte, 2020). According to Love and Fry (2006), they concluded that

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all the categories of higher learning institutions around the globe are matching from traditional learning methods to digitalized electronic systems by increasing the cyber market. As for their desires to match up and catch up with other developing countries in the education sector and new development in the field of learning.

### Challenges of E-Learning in Nigeria

Applying e-learning faces some challenges, such as:

- a. The problem of bad internet service: the issue of bad network service is among the setback to e-learning as the processes require internet services; its instability and poor quality undermine the success of the process
- b. Lack of stable electricity supply: The epileptic power supply has also drilled the success of this system as electricity serves as the major source to power this technology. Its availability is poor and also not constant
- c. High rate of data subscription: there are several complaints about the high-cost rate of data subscription, which also facilitate the lack of patronization of this system, and data is also a key resource in e-learning
- d. Poor social amenities: the problems of social amenities in Nigeria are of all sectors ranging from health, technology, and education. Poor nature has contributed to the challenges of the e-learning process
- e. Low level of technical skill and knowledge: the level of technology in most developing countries like ours is poor, and this e-learning process is technologically inclined, so the unavailability of technical know-how has served as a constraint to success
- f. Poor attitude to education: the attitudes of Africans toward education and its quality are very poor. This can be sensed from the budgetary allocation to the number of students unenrolled for education in different African countries.

#### **Problems in Nigeria Educational Sector**

- a. Poor budgetary allocation: the budgetary allocation of the education sector in Nigeria is very dismal. Nigeria. The education budget is one of the poorest in Africa. This can be seen from the table of budgets from different countries as presented in Tables 1 and 2
- b. Corruption: corruption has become a culture in Nigeria; it has the greatest obstacle to the development of Nigeria and is applicable in every sector of the economy
- c. Strike actions: strike actions by lecturers have become a frequent issue in Nigeria and also the common mechanism to get their demands or aspirations fulfilled by the government.
- d. Poor remuneration and welfare
- e. Lack of execution of educational strategies: implementation of policies in Nigeria is not only applicable to education but to all sectors. The Nigerian government is good at paperwork, but its applicability stops there
- f. Lack of political mandate: the government lacks the political mandate to allow the success of the educational goals and policies
- g. Bureaucratic red-tepism: the slowness in the movement of files across different government ministries, departments, and agencies MDAs also contribute to the problem of educational policy formulation.

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**Table 1.** Nigeria's education budgetary allocation for a consecutive period of ten years.

Year	Budget (₦ Billion)	Educational Allocation (₦ Billion)	Percentage of Budget (%)
2010	5.160	249.09	4.83
2011	4.972	306.30	6.16
2012	4.877	400.15	8.20
2013	4.987	426.53	8.55
2014	4.962	493.00	9.94
2015	5.068	392.20	7.74
2016	6.061	369.60	6.10
2017	7.444	550.00	7.38
2018	8.612	605.80	7.03
2019	8.830	620.50	7.03
Total	60.973	4413.17	7.24

Source: Ameh & Aluko (2019) and Ndujihe (2018)

**Table 2.** List of 11 African Countries with The Best Education System in 2022

No.	Names Of Countries	Rank in Africa	Rank in The World
1.	Seychelles	1 <sup>st</sup>	50 <sup>th</sup>
2.	South Africa	$2^{nd}$	84 <sup>th</sup>
3.	Mauritius	$3^{\rm rd}$	74 <sup>th</sup>
4.	Tunisia	4 <sup>th</sup>	71 <sup>st</sup>
5.	Kenya	$5^{ m th}$	95 <sup>th</sup>
6.	Algeria	6th	$107^{ m th}$
7.	Ghana	$7^{\mathrm{th}}$	$104^{ m th}$
8.	Egypt	8 <sup>th</sup>	99 <sup>th</sup>
9.	Namibia	9 <sup>th</sup>	$100^{ m th}$
10.	Libya	$10^{\text{th}}$	111 <sup>th</sup>
11.	Nigeria	$25^{th}$	124 <sup>th</sup>

**Source:** Author Computation 2022

## **RESEARCH METHOD**

According to the Encarta dictionary (2009), methodology refers to the techniques and sequence of embarking on research peculiar to a particular field or activity. The study was carried out at the university of Ilorin. Descriptive techniques were employed for data collection; in the view of Oniye (1997), descriptive research focuses on logical, accurate, and true representation of a case or event. Information was gathered through questionnaires. In the words of Nwizu (2008), a sample is a fair determinant of the general population under study. The importance of sampling in research is to ensure fair and correct choice of sample and also to save time and minimize resources. It could also

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mean a technique of selecting a sub-set from the general settings, which will be able to reflect the total set. A total number of thirty students and ten lectures were randomly selected as the research sample due to the low turnout of people in the university due to covid. The questionnaires administered were calculated into a simple percentage, and the hypothesis were tested using chi-square. Hypothesis testing or testing of a hypothesis is a procedure that is adopted in order to accept or reject a hypothesis. The formula that used is explained below.

$$X^2 = \sum \frac{(o_i - E_i)^2}{E_i}$$

Where,

 $X^2$  = Chi-Square

 $o_i$  = Observed Frequencies

 $E_i$  = Expected Frequencies

With the decision rule to accept  $H_1$  if  $X^2$  calculated is greater than  $X^2$  critical. In contrast, the  $H_1$  will be rejected if  $X^2$  calculated is less than  $X^2$  critical.

#### FINDINGS AND DISCUSSION

#### **Presentation and Result Analysis**

The majority of the respondents were aged between 18-31, which is 37.5%, while the minority were aged between 50 and above. Most of the respondents were males of 77.5%, while females 22.5%. The majority of respondents are single 67.5%, while married ones are 32.5%. Most respondents are BSc holders of 75%, while the minority is professors of 2.5%.

**Table 3.** Descriptive Analysis of Respondents

Age bracket	Regularity	Percentage
18-31	15	37.5%
32-41	10	25%
41 - 50	9	22.5%
50 - above	6	15%
Total	40	100%
ex		
Male	31	77.5%
Female	9	22.5%

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Total	40	100%
Marital status		
Single	27	67.5%
Married	13	32.5
Total	40	100%
Level of education		
BSc.	30	75%
M.Sc.	3	7.5%
Ph.D.	6	15%
Prof.	1	2.5%
Total	40	100%

### Impact of E-Learning on Educational Progress Amidst Covid-19 Pandemic in Nigeria

In the process of conducting this research paper, questions in relation to the impact of e-learning on educational development amidst covid -19 pandemic were developed and administered through questionnaires in a simple Likert scale format of 'Agree' or 'Disagree', and reasons for selection was also to be specified by the respondents. All covid -19 safety measures were adhered to during the conduct of the questionnaire section. A total of six (6) hypotheses were set and tested to validate the responses of the respondents. A total number of 29 respondents which is 72.5%, disagree with the notion that e-learning has no positive impact on educational progress amidst the COVID-19 pandemic, stating that classes have been conducted through e-learning within various departments, while 11 respondents (27.5%) agreed that e-learning has no positive impact on educational progress amidst covid-19 pandemic with their reason that many students are not aware and also provision was not properly made for that.

Regarding the question on the lack of effects of covid -19 pandemic on the educational sector, 40 respondents, which is 100% of the respondents, disagree, buttressing that the effect is not only felt in education but all sphere of life. On the question that asked do students in rural areas have access to quality internet, 35 of the respondents (87.5% of the student) disagreed, stating that even living in urban centers face network challenges, while 5 respondent which is 12.5% respondents agreed that internet service is also available in some rural areas. A total number of 28 respondents which is 70%, agrees with the question that the closure of school has a negative impact on the education sector, stating that there will be a setback in the educational sector, while 12 respondent which is 30% disagree saying that it a general problem there will not be any setback. On the question of the effect of lack of social amenities like electricity hindering the e-learning process, 33 respondents (82.5%) agree, stating that electricity is the major source of power to

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power this system of learning, while 7 which is 17.5% of the respondent disagree saying that they are another source of power available. Lastly the question on the higher cost of data subscription, a total number of 38 respondents which is 95% aggress that the rate of data subscription is high and is not durable because the charges incurred on it are exorbitant, while 2 of the respondents (5%) disagree, saying there are different network it all depends on choices.

#### **CONCLUSION**

The effect of the Coronavirus has been felt holistically. The devising of a mechanism of e-learning as an alternative form to go about learning activities now becomes essential and imperative so as to reduce or avert the entire consequences or aid the education system from collapsing. An already existing system of e-learning now surfaces again, even though it was neglected and not taken seriously in the first phase. However, its usage amidst covid-19 pandemic has really helped in the learning environment as it makes it convenient and easy to attend classes from our doorstep and now saves us from health challenges attributed to the deadly Coronavirus.

The government should encourage the usage of e-learning by increasing the provision and stability of essential social amenities, e.g., electricity and e-library. The Nigeria communication commission should liaise with the network providers on the issue of internet service and reduction in the data subscription rate. There should be programs and policies that will aid and fosters the applicability and availability of e-learning facilities. Lastly, the government should also increase its budgetary allocation to education and also tackle corruption, among other problems.

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