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Analysis of Covid-19 Pandemic and Migration to Distance Learning and Digital Education in Public Tertiary Institutions in Abia State

Solomon Makasda DICKSON[a*], Sarah Banku ENOCK[b]

[a]School of Sciences, Department of Computer Science, National Institute for Nigerian Languages, Aba, Abia State, Nigeria
[b]Department of Public Administration, Federal Polytechnic, Idah, Kogi State, Nigeria

*Corresponding author: dicksonsolomon1988@gmail.com

Abstract

The study was conducted to examine the analysis of the COVID-19 pandemic and migration to distance learning and digital education in public higher institutions in Abia State. The COVID-19 pandemic era is simply a period when everything and sectors of the economy were paralyzed and all activities were halted. It implies that teaching activities and learning activities in traditional classrooms were affected. This study aimed to determine the extent to which public higher institutions in Abia migrated to digital education in the COVID-19 pandemic era. This objective was to examine how equal education opportunities and curriculum implementation during the COVID-19 pandemic era in public tertiary institutions in Abia State. Two research questions were raised and answered for the study. Two research hypotheses were formulated and tested at a .05 level of significance. A descriptive survey research design was adopted while structured questionnaires were used for data collection. The population of the study consisted of all the public tertiary institutions in Abia State while the sample random sampling technique was in the study. The Statistical for Social Science (SPSS) was used as the statistics for data analysis which helped in realizing the objectives of the study. From the findings of the study, both tertiary institutions and the Government as well as the lecturers are instruments for improving migration to digital education in higher institutions in Abia State.

Keywords**:** Analysis, Covid-19 Pandemic, Migration, Distance, Learning, Digital and Education

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Introduction

The COVID-19 pandemic has significantly impacted the world in various ways. In addition to the millions of lives lost, the pandemic has also caused widespread economic and social disruptions. The unprecedented nature of this global crisis has led to a surge in research and academic studies focusing on various aspects of the pandemic (Aljuneidi et al., 2023); (Leal Filho et al., 2021). One key issue that has emerged in the COVID-19 pandemic is the impact on the education systems around the world. The rapid spread of the virus has overwhelmed education infrastructure and highlighted the need for better preparedness and response strategies. The pandemic has brought to light the existing disparities in access to education, with marginalized communities. The pandemic has also had a profound impact on the education sector. With schools and universities shut down, there has been a rapid shift towards online learning and remote education. This has highlighted the need for innovative and adaptive approaches to teaching and learning, as well as the importance of digital infrastructure and distance education (Dickson et al., 2024). In Nigeria, the story was the same as the educational sector as hurriedly closed down by the end of March 2020 during the pandemic period. However, following the closure of schools globally, there was an honest search to mitigate the effects and revive teaching and learning amid the lockdown hence, the digital teaching, and distance education options. This seems to collaborate with the view of (Madjid et al., 2023), in his book Capitalism and Freedom, he noted that only a crisis actual or perceived produces real change.

Digital education in crisis are opportunity for reforms, transformations, genuine conversation, rethinking ideas, and approaches for overhauling systems and processes to reflect new priorities (Aljanazrah et al., 2022). Migration refers to the process of individuals or groups moving from one geographical location to another. This phenomenon has been a major aspect of human society for centuries and continues to occur in various forms today (Sheikh et al., 2023). The reasons for migration vary greatly and can include factors such as education, economic opportunities, political upheaval, environmental changes, or simply a desire for a better quality of life. As a result, migration has a significant impact on both the individuals who migrate and the societies they move to. Migration means the movement of people or goods from one place to another in economics, but in this study, it entails switching over to another direction. With the lockdown of all the sectors including the education sector, the future becomes gloomy and hazy, especially for Nigerian children in general and Abia State in particular. It is important to note that for effective switch or migration to digital education in Abia higher institutions, which is in order words e-learning education, depends on the factors such as; accessibility of digital learning, equality in education (equal opportunity to all groups), quality of education (provision of suitable infrastructure aimed at delivery), curriculum implementation and teachers digital skills cum knowledge (Dwivedi et al., 2023).

Methodology

The study adopted a descriptive survey research design. Survey research design involves the collection of data through the use of interviews, observations and questionnaires at one point in time and used for opinion surveys. A descriptive survey research design is one in which a group of people or items is studied by collecting and analyzing data from only a few people or items considered to be representative of the entire group using a questionnaire, In addition, descriptive survey research design involves the use of questionnaire, interview, and observation to determine the opinions, attitudes, performance, and perception of persons of interest to the investigator. This design is considered appropriate for this study since information will be collected from students in all higher institutions in Abia State, Nigeria to determine the extent to which digital education migration in the Covid-19 pandemic era.

Population of the Study

The population of the study comprises 355 Students in all tertiary institutions in Abia State for the 2022/2023 academic session in all the institutions accredited by a regulatory body, in Abia State. Specifically, the population consists of 71 students from State University (ABSU) Uturu, 62 students from Michael Okpara University of Agriculture (MOUAU), Umudike, 46 students from Abia State Polytechnic Aba, 53 from National Institutes for Nigerian Languages (NINLAN), Abia, 47 students from College of Health and Management Technology, Aba and 76 students from Abia State College of Education Technical Arochkwu. The study population consists of all higher institutions.

Sample and Sampling Technique

The sample size for the tertiary institution was 116 respondents' determined using the Taro Yamane formula. Stratified random sampling was adopted while simple random sampling was used to select respondents from each stratum.

Instrumentation

The researcher developed an instrument tagged "Covid-19 Pandemic and Migration to Digital Education (CPMDE)" which was used in collecting data for the study. The questionnaire was subdivided into two sections (A-B). Section A sought respondents' demographic data. Section B elicits data from the respondents on digital education. Responses were based on a five-point rating scale**.**

Reliability of the Instrument

A test of the instrument was carried out to determine internal consistency using 20 respondents each from public higher institutions respectively who were not part of the main study. The data collected were subjected to Cronbach's Alpha reliability test. The Cronbach's Alpha was preferred because in order to establish a more accurate reliability of the instrument.

Method of Data Collection

The distribution of the questionnaire was carried out by the researcher with the help of one research assistant to achieve a high rate of returns and as well prevent the loss of instruments. The research assistant was guided on the procedures for the distribution and collection of the instrument from the respondents. Two hundred and sixteen (216) copies of the questionnaire were distributed while 116 copies were retrieved representing 91%. Therefore, copies were retrieved from public higher institutions respectively.

Method of Data Analysis

In answering the research questions, the mean and standard deviation were used, while an independent t-test was used to test all the null hypotheses at a .05 level of significance**.**

Results and Discussion

The results of the study are presented under the research questions and hypotheses the results of the data analyzed under the following subheading:

Research Question 1

To what extent does the availability of infrastructural facilities in COVID-19 pandemic influence migration to digital education in public higher institutions in Abia State?

Table 1. Mean and Standard Deviation of Influence of Availability of Infrastructural Facilities in COVID-19 on Migration to Digital Education

Variable	N	Mean	SD
infrastructural facilities	116	10.60	2.69
Migration to digital education	116	20.34	4.37

Table 1.1, showed that the availability of infrastructural facilities in COVID-19 yielded a mean and standard deviation of 10.60 and 2.69, and migration to digital education, mean scores and standard deviation of 20.34 and 4.37, respectively were obtained. The difference in the mean scores revealed that the availability of infrastructural facilities in the COVID-19 pandemic era has influenced migration to digital education to a large extent.

Research Question

What is the influence of the extent of curriculum delivery in COVID-19 pandemic on migration to digital education in public higher institutions in Abia State?

Table 2. Mean and Standard Deviation of Influence of Curriculum Delivery in COVID-19 on Migration to Digital Education

Variable	N	Mean	SD
curriculum delivery	116	15.77	2.94
Migration to digital education	116	20.34	4.37

Table 2, indicated that respondents returned mean and standard deviation of 15.77 and 2.94 respectively on the extent of curriculum delivery in the COVID-19 pandemic era while mean scores and standard deviation of 20.34 and 4.37, respectively were obtained for migration to digital education. The result implies that the extent of curriculum delivery has an influence to a great extent, on migration to digital education by higher institutions in Abia State.

Testing of Hypotheses

Ho_1 there is no significant influence of infrastructural facilities in COVID-19 pandemic era on migration to digital education in public higher institutions in Abia State.

Table 3. Paired t-test analysis of the Influence of Infrastructural Facilities in the COVID-19 era on Migration to Digital Education (N=116)

Variables	Mean	SD	Df	t-value	Sig.
infrastructural facilities	10.60	2.69			
			115	29.97	.000
Migration to digital education	20.34	4.37			

Table 3 shows that the t-value (115) = 29.97. The significant level (.000) is less than the chosen alpha level (.05). Based on the result, the null hypothesis that postulated that there is no significant influence of the availability of infrastructural facilities in Covid-19 pandemic era on migration to digital education in public higher institutions in Abia State was therefore, rejected from the result it can be deduced that the influence of availability of infrastructural facilities in Covid-19 era on migration to digital education in public higher institutions in Abia State is significant.

Hypotheses

Ho_2 there is no significant influence of the extent of curriculum delivery in the COVID-19 pandemic era on migration to digital education in public higher institutions in Abia State.

Table 4. Paired t-test analysis of the Influence of the Extent Curriculum Delivery in the COVID-19 era on Migration to Digital Education (N=116)

Variables	Mean	SD	Df	t-value	Sig.
extent curriculum delivery	15.77	2.94			
			116	9.51	.000
Migration to digital education	20.34	4.37			

From Table 4.4 it can be seen that t-value (115) = 9.51. The significant level (.000) is greater than the chosen alpha level (.05). Based on the result, the null hypothesis stated that there is no significant influence of the extent of curriculum delivery in the Covid-19 pandemic era on migration to digital education in public tertiary institutions in Abia State was therefore, rejected. It can be deduced from the result that the extent of curriculum delivery significantly influences the readiness to migrate to digital education in public higher institutions in Abia State.

Distance learning has become increasingly popular in recent years, allowing students to pursue their education from anywhere in the world (Garlinska et al., 2023); (Paul & Jefferson, 2019). The rise of distance learning has been fueled by advancements in technology, making it easier than ever for individuals to access educational materials and participate in interactive learning experiences (Sato et al., 2023). This form of education has also opened up opportunities for students who may not have been able to attend traditional in-person classes, such as those with busy schedules or geographical limitations. With the convenience and flexibility of distance learning, it has become an integral part of the academic landscape, providing a unique and valuable educational experience for students of all backgrounds. Distance learning is a form of education that has gained popularity in recent years (Dhawan, 2020). It involves the use of technology to deliver academic content to students remotely, without requiring them to be physically present in a traditional classroom setting. This learning approach has provided many benefits, such as flexibility and accessibility, to students who may not have the resources or time to attend classes on campus. Distance learning has been widely adopted by universities, colleges, and other academic institutions all over the world. It has also become a popular choice for working professionals who wish to further their education without having to leave their jobs. The use of various technological tools, such as online platforms, videos, and interactive learning materials, has made distance learning a dynamic and engaging experience for many students (Mhlanga, 2024); (Abdulrahaman et al., 2020).

One of the key advantages of distance learning is its ability to break down geographical barriers and reach students from all over the globe (Aldosemani et al., 2024); (Onu et al., 2024). This has allowed for a diverse and multicultural learning environment, where students can interact and learn from each other's perspectives. It has also made education more accessible to remote and underserved communities, who may not have access to traditional educational institutions. Digital education has become an increasingly important topic in academia. The rise of technology and the internet has greatly impacted the way students learn and access information. As a result, many studies have focused on the effectiveness of digital education in various fields such as science, language, and mathematics. This has led to the development of new teaching methods and online platforms to enhance digital education. In addition, the use of virtual reality and interactive tools has also been explored to create a more engaging and immersive learning experience. With the growing popularity of digital education, educators and researchers need to continue studying its impact and effectiveness to provide the best learning opportunities for students.

The use of technology in education, specifically digital education, has become increasingly popular in recent years. This approach to learning allows for a more interactive and engaging experience for students, as well as providing access to a wealth of resources and information. In this abstract, we will examine the current state of digital education and its impact on traditional learning methods (Yarychev & Mentsiev, 2020). One of the main advantages of digital education is the ability to personalize learning for each student (Haleem et al., 2022); (Gunawardena et al., 2024). With the

use of various online tools and platforms, educators can tailor the curriculum to meet the specific needs and preferences of their students. This allows for a more effective and efficient learning experience, as students can progress at their own pace and focus on topics that interest them. Digital education (Online) has grown rapidly in recent years. It is important to note that digital learning may be described as the adoption of technological innovations that entail the use of online educational platforms such as MS Outlook, zoom, virtual meetings, e-mail, face time, web Ex, and Google hang-out that require online enabled cell phone, laptop, regular power supply and effective cyberspace and manpower know-how for effective teaching and learning outside the traditional classroom (Gkrimpizi et al., 2023); (Moorhouse & Wong, 2022). This is the crux of the matter during the enforced lockdown of the pandemic, hence, the worthwhileness of the investigation.

Conclusion

In conclusion, the COVID-19 pandemic era has resulted in significant changes and challenges in various areas of society. The research and academic studies being conducted in response to this crisis are crucial in understanding and addressing these challenges, and will continue to shape our response to similar crises in the future. Digital education has brought about significant changes in the traditional education system. It has revolutionized the way students learn and has opened up new avenues for personalized and diverse learning experiences. As technology continues to advance, educators need to adapt and harness its capabilities to further improve the effectiveness of digital education.

Conflicts of Interest

The authors declare no conflict of interest.

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