Impact of Covid-19 Pandemic on Student Academic Performance in Nigeria Tertiary Institutions

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ABSTRACT

The COVID-19 pandemic has resulted in notable obstacles and disturbances in multiple domains, including the realm of education. In an unprecedented endeavour to stop the virus's spread, educational institutions across the globe were compelled to close their physical classrooms and switch to online instruction. The abrupt transition to remote learning has had a significant effect on students' general wellbeing and academic achievement. The study employed quantitative approach, specifically utilising survey method. Using snowballing sampling 350 respondents were selected from seven institutions in the study areas. Descriptive statistics were employed to analyse the socio-demographic characteristics of the respondents. Finding shows that the loss of in-person interactions with peers and teachers is one of the main effects of the epidemic on students' academic performance. The findings reveal that the pandemic has negatively impacted Nigeria's educational sector and economic development, it is argued amongst others that the failure of Nigeria to make adequate provisions for an unforeseen contingency like pandemic periods has significant negative impact on education in Nigeria; Pandemic also reduce the graduate turnout of higher institutions in Nigeria, therefore, schools will need resources to build facilities to prepare for e-learning and distance learning during such occurrence. A traditional classroom setting makes it feasible to receive real-time feedback and get clarification on doubts, which is crucial for the best learning outcomes. However, it could be challenging for students to engage with their teachers in a productive way in virtual learning settings, which could lead to a poor understanding of the subject matter. Inequality in access to technology has the potential to exacerbate the already-existing achievement gap and impede the academic advancement of underprivileged students.

Key words: Covid-19, Student Performance, Socio-economic activities, Tertiary Institutions & Nigerian Policy on Education

INTRODUCTION

The coronavirus pandemic has impacted the world in a lot of different ways and magnitude, of interest is the devastating impact the new virus has had on the educational systems in the world (Ebner, Schon, Braun, Ebner, Grigoriadis, Haas, Leitner and Taraghi 2020). The outbreak of the COVID-19 pandemic has led to unprecedented changes in the way education is delivered, impacting students' academic performance worldwide. One of the most significant impacts of the COVID-19 pandemic on students' academic performance has been the widespread disruptions to learning. With schools and universities forced to close their physical campuses and transition to online learning, many students have struggled to adapt to this new mode of education. The sudden shift to remote learning has presented challenges such as poor internet

connectivity, lack of access to technology, and difficulties in engaging with online material. According to a study by UNESCO, over 1.5 billion students worldwide were affected by school closures during the pandemic, leading to disruptions in their learning and academic progress (UNESCO, 2020). Moreover, the pandemic has also taken a toll on students' mental health, further affecting their academic performance. The prolonged periods of social isolation, uncertainty about the future, and fear of contracting the virus have contributed to heightened levels of stress, anxiety, and depression among students.

According to a survey conducted by Usman, Obi, Ibrahim & Daniel, (2024), a mental health organization, 80% of college students reported that the pandemic had negatively impacted their mental health. Students' inability to concentrate on their academics as a result of these mental health issues has resulted in poorer academic achievement. Furthermore, the COVID-19 epidemic has made socioeconomic inequalities in school worse, which has resulted in a wider achievement gap between children. The epidemic disproportionately affects students from low-income families because they have less access to tools like technology, internet connectivity, and a comfortable home environment for learning. According to an Economic Policy Institute study, students from lower-income families were more likely than their wealthier peers to face educational disruptions during the pandemic, which would have negatively impacted their academic achievement (Economic Policy Institute, 2021).

Part of the grim consequences includes the spontaneous shutting of schools and sudden switch to remote learning in some jurisdictions as an alternative strategy to sustain the educational process. Also, critical players in the educational milieu such as educators, lecturers, and researchers are faced with the challenges of coping within the debilitating impact of the coronavirus disease. Pandemics are diseases that are regarded as new set of viruses that can easily become infectious and which have the tendency for a quick spread within short period of a time. Pandemics are regarded global or are identified as such if the rate of infection spread and fatalities become high, and efforts to overcome them prove difficult or costly for the global key players in health sector (Jarus, 2020). Usually, the World Health Organisation is the body that is saddled with the task of declaring a virus a pandemic in contemporary world.

In contrast, developing countries, particularly in sub-Saharan Africa, constrained by low financial muscle, poor Internet infrastructure, competing budgetary needs, and personnel skill gaps are struggling to cope with the disruptions caused by the pandemic. Despite the handful of efforts made by some state governments in Nigeria to adopt the alternative teaching model or e-Learning programs (such as television and radio school broadcasts), more than 75% of the federation states had their schools under lockdown. However, there is an apparent lack of evidence-based data on the success of the e-Learning solutions and the extent of the organizational, institutional, and digital skill readiness in delivering optimal teaching and learning outcomes using the flexible learning or remote learning medium during health emergencies. Understanding these phenomena is essential because it helps guide curriculum and instruction design that optimizes citizens' learning opportunities and provides insights into how resource constrained communities could deal with educational challenges during health emergencies and academic disruptions.

Apart from its indirect impact, the pandemic impacts include the possible use of school facilities as make-shift hospitals, as in some low-infrastructure rural areas the school may be the only public building available. That may cause lengthier disruption of education services making the building unavailable for education purposes. The World Bank also went further by giving ways through which countries can mitigate the effect of the virus on education. The World Bank said countries must show high level preparedness while keeping schools open by enforcing and supporting preventive measures in schools. Promoting and enhancing distance learning or e-learning in other to mitigate the loss of learning as well as using the all the available educational resources to ensure that education is been restored by to normalcy amid the pandemic. impending situation threatens to deepen Nigeria's education crisis, (Live Science, 2020) said the impact of the virus on education cannot be overemphasized but can be mitigated by providing distance learning

through low-cost technology, empowering and supporting parents, tapping into global resources, increase in education financing and reaching the most vulnerable. The objectives are to determine the extent to which covid-19 affects students' academic performance in tertiary institution in Nigeria.

METHODOLOGY

The descriptive survey design used in the study which seek to describe the existing status of what is being investigated and also help the researcher to know where the variables are gotten and how the objectives could be achieved. For the purpose of this study, seven (7) most populated higher institutions with experience of Covid-19 lockdown were sampled across Nigeria which are; University of Ilorin (UNILORIN) with population of 64,825. University of Abuja (UNIABUJA) with population of 61,986. University of Benin (UNIBEN) with population of 56,702. Lagos State University (LASU) with the population of 53,885. University of Nigeria, Nsukka (UNN) with population of 50,242. University of Lagos (UNILAG) with the population of 49,379 and University of Ibadan (UI) with population of 49,223. The population of the study consist of all the tertiary institution in Nigeria, this targeted population by the researcher is estimated to be 170 tertiary institutions in Nigeria as at 2021 population.

For the purpose of this study a snowballing sampling method was adopted to choose 50 respondents each in seven (7) selected institution, this involved only student who were admitted in the institution before Covid-19 lockdown and staff of the selected institutions. To ensure the validity of the research instrument(s), a pilot survey and pretest were conducted before the actual administration of the questionnaire. This process involved the participation of five experts from the departments of criminology and security studies, political science, sociology, public administration, and management. The experts reviewed the items, and only those that received acceptance from two or more experts were included in the final version of the instrument for administration. The reliability of the instrument was assessed using the split-half method. Specifically, the items of the instrument were assigned odd numbers and administered to respondents who were located outside the study area. The data that was acquired was subjected to analysis using the Chi-squared statistical method. The experts deemed the acquired value of 71 to be sufficiently high for the instrument to be utilised in the study. Out of these distributed questionnaires, only 337 respondents answered all questions in the survey questionnaire. Hence, the research has considered the responses of 337 participants for investigating the research topic. In order to analyse the survey data and draft the final findings. The test model was structured to capture tertiary education development (graduate turnout) as dependent variable while total number of persons infected and number of death from the virus, as independent variables (), Correlation Coefficient and Chi-square statistical techniques was adopted to evaluate the questions pose by the research in the cause of this study and thereby draw inferences on the results generated. In order to statistically determine the impact of coronavirus pandemic on student academic performance, the following hypothesis was formulated.

H0: Covid-19 pandemic has no significant impact on student performance

HI: Covid-19 pandemic has a significant impact on student performance

RESULT AND DISCUSSION OF FINDINGS

Unit Root

Unit root test results using Augmented Dickey Fuller (ADF) indicate that two of the series (Covid Death and Covid Inf) are stationary at level (constant)(I(0)) but only the dependent variable (Grad Turnout) was stationary at first order of one (I(1)). Therefore, the order of integration is mixed and not beyond first differential, this made ARDL as an appropriate modelling technique.

Table 1 Augmented Dickey Fuller (ADF) Unit Root Test Results

Variables	Augmented Dickey Fuller Statistics		Augmented Dickey Fuller (ADF)
	Level	First Difference	5%
Grad Turnout	-2.129047	-5.196274**	-3.040391
Covid Death	-5.922201*	-4.399797**	-3.081002
Covid Inf	-3.590416*	-3.887651**	-3.040391

(*) stationary at level (**) Stationary at first difference

Source: Author Computation 2023/2024

Employing the ARDL approach in this study captured both the short and long run effects within the estimated model. In most cases, the critical value of the bound testing is a function of selected lag length. Here the optimal lag *(p)* is determined empirically using the Akaike's Information Critical (AIC) and other information criteria. Summary of the results for the appropriate lag length of the model is presented in Table 2; this implies that the appropriate lag length for the study is one.

Table 2 Lag length selection criteria test results

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-433.0574	NA	3.82e+18	51.30087	51.44790	51.31548
1	-417.1048	24.39806*	1.73e+18*	50.48292	51.07107*	50.54138*
2	-410.9660	7.222070	2.76e+18	50.81953	51.84880	50.92184
3	-398.3667	10.37593	2.60e+18	50.39608*	51.86646	50.54224

Source: Author Computation 2023/2024

ARDL Bound Test

The result of the ARDL model is presented in Table 2. It is evident from the results that Covid-19 pandemic has statistically significant effect on tertiary education performance in the period under studies. The implication of this result is that though the pandemic is not supposed to have a significant impact of the tertiary education performance however, Nigeria educational system was not prepared for such shock and changes in the mode of lecture delivery. Nevertheless, such impact will be observed in the short-run and its effect would also be observed in the long run. It is evident from the results that the F-statistics value of 23.63 is greater than the upper bound critical values – I(1) at all levels of significance. This result confirms positive long-run relationship in the model and significance in the relationship between the dependent and independent variables. The result showed that the Covid-19 infections and Covid-19 Death significantly influenced educational development between the periods of investigation.

Table 3: Result of ARDL Bounds Test

Test Statistic	Value	K
F-statistic	23.63	2
Critical Value Bounds		
Significance	I(0) Bound	I(1) Bound
10%	2.63	3.35
5%	3.10	3.87

2.50%	3.55	4.38
1%	4.13	5.00

Source: Authors Computation 2023/2024.

Short-Run Post-estimation

The results further presented in Table 4. The coefficient of ARDL short run adjustment mechanism (CointEq (-1)) from the table stood at -0.633 which shows that 63.3% of disequilibrium in the model is corrected monthly. This implies that for every loss in the tertiary education the institution possesses about 63.3% of chances to rise back to standard at resumption, this is due the fact that Nigeria Institutions are faced with industrial actions (strike) which causes schools to close almost annually this make the students and staff familiar with school closure during Covid-19.

Table 4: Results of Short-run estimates

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(COVIDINF)	-7.944129**	0.371395	-21.3996	0.0297
D(COVIDDEATH(-3))	-201.5313*	31.46959	-6.404000	0.0986
D(GRADTURNOUT(-3))	1.578765**	0.062432	25.28786	0.0252
CointEq(-1)*	-0.633791**	0.032595	-19.44462	0.0327

***; ** and * significant at 1%; 5% and 10%, respectively

Source: Authors Computation using e-views 14. 2023/2024.

The COVID-19 pandemic has had a significant impact on nearly every aspect of daily life, including academic performance among students. As schools have shifted to remote learning and implemented various mitigation measures to curb the spread of the virus, it is important to examine the short- and long-term effects of these changes on students' academic performance. In the short run, the closure of schools and transition to remote learning due to the pandemic may have had immediate negative effects on students' academic performance. Many students faced challenges with the sudden shift to online learning, including technological barriers, lack of internet access, and difficulties staying motivated and engaged in a virtual classroom setting. These factors could lead to lower grades, decreased participation, and overall poorer academic outcomes in the short term. In the long run, the effects of COVID-19 on students' academic performance may persist even after schools have reopened and returned to in-person instruction. Researchers like Usmam, Obi, Ibrahim & Daniel, (2024) has shown that prolonged periods of disrupted learning can have lasting effects on students' educational attainment and achievement. Students who experienced significant academic setbacks during the pandemic may continue to struggle academically, leading to lower grades, decreased motivation, and reduced educational engagement in the long term. By incorporating lagged variables and accounting for potential confounding factors, the ARDL model can provide a comprehensive understanding of the impact of the pandemic on students' academic outcomes. Using the ARDL approach, researchers can estimate the short- and long-term effects of COVID-19 on students' academic performance by analyzing key variables such as school closures, remote learning experiences, and socioeconomic factors.

INSTITUTIONAL MEASURES TOWARDS COVID-19

Table 5: Correlation Coefficient Results

Correlations		To what extent does the approach of your institution help reduce the effect of the pandemic and increase academic activities developments?	Did your institution closed to reduce the spread of the virus
To what extent does the approach of your institution help reduce the effect of the pandemic and increase academic activities developments?	Pearson Correlation	1	-.288**
	Sig. (2-tailed)		.000
	N	337	337
Did your institution closed to reduce the spread of the virus	Pearson Correlation	-.288**	1
	Sig. (2-tailed)	.000	
	N	337	337

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Authors Computation using SPSS 23. 2023/2024.

The results show a Pearson product moment correlation **value of -0.288 (28.8%) which shows that there is negative impact of covid-19 on tertiary education development and it also implies that** tertiary education in Nigeria has no significant approach towards mitigating COVID-19 pandemic**, since the relationship value is 28.8% which is considered low, with this we accept the null hypothesis and conclude that "**Tertiary education in Nigeria has no significant approach towards COVID-19 pandemic**".**

Chi-Square Descriptive Table

Table 6: What are the challenges posed by COVID-19 pandemic to education in your institution?

	Observed N	Expected N	Residual
Student keep abstaining from the class	30	67.4	-37.4
Many schools have no resources for online learning	171	67.4	103.6
Many lecturers have no technical knowledge to carryout online learning	70	67.4	2.6
It has reduced impact on learning	39	67.4	-28.4
COVID-19 pandemic poses no significant challenges to educational growth	27	67.4	-40.4
Total	**337**		

Chi-Square Results

Table 7: Test Statistics

	What are the challenges posed by COVID-19 pandemic to education in your institution?
Chi-Square	216.279[a]

Df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 67.4.

Source: Authors Computation using SPSS 23. 2023/2024.

The results show a chi-square value of 216.279 with the significant value of 0.000 this implies that Covid-19 pandemic pose significant challenges to student academic performance in Nigeria **(since the significant value 0.000 < 0.05) with this we reject the null hypothesis and conclude that "**Covid-19 pandemic pose a significant challenge to student academic performance in tertiary education in Nigeria**".**

RESEARCH FINDINGS AND LIMITATIONS

This research seeks to examine the impact of COVID-19 pandemic on tertiary education in Nigeria. The paper reviewed of the issue of Covid-19 on Nigerian higher institutions. The paper discussed perspective on pandemics; a global view; overview of COVID 19 pandemic, COVID 19 pandemic in Nigeria, impacts of COVID 19 pandemic on Nigeria. Additionally, theories are reviewed and integrated in the work to explain more and support the concepts and issues discussed in the research, most of the educational institutions across the world were closed, meanwhile, some institutions migrated to the emergency remote teaching medium as the 'new normal' practices.

The ARDL F-statistics result confirms positive long-run relationship in the model and significance in the relationship between the dependent and independent variables. The result showed that the Covid-19 infections and Covid-19 Death significantly influenced educational development between the periods of investigation. The management of the institution can reduce such impact by providing distance/remote learning training facilities for the staff and improving the standard of such facilities where available. Other result also shows that Covid-19 pandemic has exposed the decadence in the Nigerian tertiary institution and the pandemic still pose challenges to the development and growth of tertiary institution in Nigeria. The study found that like in other aspects of life, many students and those in the education sector have a variant view on the nature or even existence of the virus itself. This has been supported by some studies ((Okyere, Salusalu, Gounder, & Marfor, 2023); Hruby, 2020) that perception on COVID 19 pandemic is still controversial in Nigeria.

The study also discovered that most of the respondents preferred the use of protection method such as wearing of facemasks and washing of hands with hand sanitisers in continuing their academic duty. Majority did not subscribe to the idea of sit at home, social exclusion or isolation this is contrary to some studies (Ahmed, 2020; Olufemi, 2020). In addition, the study found that most of the respondents blamed the Nigerian Government for its negligence in addressing the rot in the education system. They perceived that the government failed to provide adequate funding and because of that, the education sector could not get the required modern facilities that will survive the pandemic in terms of continuation of studies. This same situation was also reported by studies (Attah et al., 2021; Sambo & Sule, 2021). The ARDL result confirms a significant relationship between the dependent and independent variables. The result showed that the Covid-19 infections and Covid-19 Death significantly influenced educational development in Nigeria between the periods of investigation and beyond.

Furthermore, the impact of the pandemic on education was recorded by the United Nations Educational, Scientific, and Cultural Organization (UNESCO), as mentioned by Usman, Obi, and Ibrahim (2023). According to estimates as of March 30, around 87 percent of the global student population, which amounts

to 1.5 billion individuals, has experienced the impact of school closures. The majority of these students are enrolled in elementary and secondary educational institutions, while there are also a significant number of students impacted at the pre-primary and tertiary education levels. More than 180 countries have shut school doors worldwide, while others have implemented localized school closures.

In a similar vein, the academic calendar of higher institutions was disrupted when the Federal Ministry of Education issued a directive for all tertiary schools in Nigeria to cease operations and facilitate the return of students to their respective homes. On March 19, 2020, Sonny Echono, the Permanent Secretary in the Ministry of Education, informed reporters that the aforementioned directive was implemented as a component of the nation's comprehensive approach to mitigating the transmission of the virus. Nigeria has recently been part of the expanding cohort of African nations that have implemented the closure of educational institutions, including schools and universities. Prior to the formal declaration made by the permanent secretary, the majority of universities had already initiated the process of sending their students back to their respective homes. The COVID-19 pandemic has caused significant disruptions to the academic calendar of higher education institutions in Nigeria.

The universal closure of schools was an instant response to the first shock caused by the outbreak of the virus. Schools in nations that prioritize the field of education have been undergoing a transformation by embracing digital platforms. This shift is facilitated by the availability of contemporary learning resources such as audio-visual tools, internet connectivity, computer systems, and virtual libraries. In response to the prolonged duration of the pandemic and the ongoing extension of lockdown measures and travel restrictions, several nations opted to implement remote learning methods facilitated by digital platforms (Ahmed, 2020). In Nigeria, there is a lack of provision of digital learning facilities to both instructors and students inside the school system (Okuwa, 2004). However, both official entities at different tiers and non-governmental groups recognized the use of radio-based education as a provisional substitute, which ultimately did not provide the anticipated results. How may one employ descriptive analytics using a radio medium to instruct various disciplines such as mathematics, physics, geography, chemistry, biology, and others? The use of radio as an educational tool represents a notable advancement, given that its potential had not been previously recognised. However, it fell short of adequately addressing the need for time management during periods of home confinement.

There were many difficulties for students during the COVID-19 pandemic. The sudden switch to online learning presented challenges for many students who were not used to digital learning; inequality in access to resources exacerbated already-existing educational disparities; isolation from classmates and friends contributed to feelings of loneliness and negatively impacted mental health; and lack of access to necessary technology, such as laptops or reliable internet, made it difficult for many students to participate fully in virtual classes. Concerns over the validity and fairness of assessments were raised when assessment techniques were converted to an online format. Additionally, some students encountered problems taking online tests because of technological difficulties or a lack of a conducive setting. Some students found it difficult to concentrate on their schoolwork because of difficult home conditions, such as noise, cramped quarters, or caregiving duties. Many students' mental health suffered as a result of the pandemic's stress and uncertainty as well as academic expectations. During the epidemic, a number of students and their families encountered financial challenges that impacted their capacity to pay for educational fees. Students encountered confusion and additional learning curves due to the variety of learning management systems and online tools, and others found it difficult to adjust to the self-directed nature of online learning.

LIMITATION OF THE STUDIES

The study is limited to only the effect of Covid-19 pandemic on student academic performance in tertiary education in Nigeria and as such does not account for other factors affecting tertiary education in Nigeria.

CONCLUSIONS

It is discovered that the COVID-19 pandemic has many impacts on Nigerian educational system in many ways. In the first place, the pandemic brought about several views from different individuals. The study found that like in other aspects of life, many students and those in the education sector have a variant view on the nature or even existence of the virus itself.. The study also discovered that most of the respondents preferred the use of protection method such as wearing of facemasks and washing of hands with hand sanitisers in continuing their academic duty. Majority did not subscribe to the idea of sit at home, social exclusion or isolation this is contrary to some studies (Ahmed, 2020; Olufemi, 2020). In addition, the study found that most of the respondents blamed the Nigerian Government for its negligence in addressing the rot in the education system. They perceived that the government failed to provide adequate funding and because of that, the education sector could not get the required modern facilities that will survive the pandemic in terms of continuation of studies. This same situation was also reported by studies (Attah et al., 2021; Sambo & Sule, 2021).

The ARDL result confirms a significant relationship between the dependent and independent variables. The result showed that the Covid-19 infections, and Covid-19 Death significantly influenced educational development in Nigeria between the periods of investigation and beyond. The study concludes that COVID-19 pandemic has tremendously impacted on every facet of the educational ecosystem across the world. Among the worst-hit are the developing countries such as Nigeria, who are currently faced with deficits in the technological infrastructure and personnel to adopt the swift transition to emergency remote learning. This study sheds light on the impact of the COVID-19 pandemic in higher education in Nigeria, the degree of impact of COVID-19 pandemic on student performance, enumerate the approach of tertiary education in Nigeria towards COVID-19 pandemic, estimate the challenges posed by COVID-19 pandemic on tertiary education in Nigeria. The results revealed similar challenges to other studies: lack of policy framework and directions, inadequate infrastructure to support transitioning to digitally mediated pedagogy, as critical challenges.

RECOMMENDATIONS

The study made some recommendations following the findings and revelations from the investigations and analysis conducted.

1. Government must provide adequate funding for the education sector and it must also supply all the needed modern facilities for learning that can survive the occurrence of a future event like COVID-19 and beyond.
2. Policymakers should ensure institutions adopted distance learning for some courses or programmes as this will help the institutions prepare for unforeseen circumstances.
3. Additionally, people should take their rights beyond mere verbal or social media analysis. They should engage those that are seeking elective offices to ensure that they strike deal with them for providing some essential services such as education, health, security, and others. This can be done by avoiding money politics or vote buying and asking the contestants to sign an agreement towards that with the electorates.
4. Furthermore, all stakeholders must put their hands on the desk to rescue the education sector in Nigeria. This is because education is not only the business of government but all members of society alike.
5. Government and other stakeholders should ensure post impact of Covid-19 on tertiary institution are addressed to ensure smooth and confident running of the institution.

REFERENCES

1. Ahmed, M. (2020). *COVID 19 and Nigerian educational system: Whither alternative?* Paper presented at the a 2-Day Workshop on Education for National Development in Trans corp Hilton Hotel Abuja 3rd-4th November, 2020.
2. Attah, N. E., Sambo, U., Sule, B., Bello, M. A., & Saragih, M. Y. (2021). COVID 19 and increased security challenges in Northern Nigeria: Interrogating Armed Banditry in Northwestern Nigeria. *SIASAT, 6*(1), 33-44. Available at: https:// doi.org/ 10.33258/ siasat .v6i1.87.
3. Basilaia, G., & Kvavadze, D. (2020). Transition to Online Education in Schools during a SARSCoV-2 Coronavirus (COVID-19) Pandemic in Georgia. Pedagogical Research, vol. 5, no.4.
4. Center for Diseases Control and Prevention (2020). "Post-COVID Conditions". U.S. Centers for Disease Control and Prevention (CDC). Retrieved 20 February, 2023/2024.
5. Economic Policy Institute. (2021). How the COVID-19 pandemic is exacerbating educational inequality. Retrieved from https://www.epi.org/publication/investment-in-education/
6. Hruby, A. (2020). *A rough road ahead for Nigeria: Atlantic council*. Lagos: Atlantic Council.
7. Jarus, O. (2020). 20 of the worst epidemics and pandemics in history. Retrieved from https://www.livescience.com/worst-epidemics-and-pandemics-in-history.html Accessed 19th February, 2023/2024 at 8:14 pm.
8. Okuwa, O. B. (2004). Private returns to higher education in Nigeria. African Economic Research Consortium Research Paper No. 139. Nairobi, March.
9. Okyere, E., Salusalu, M., Gounder, R. & Marforh, K. (2023). Online teaching during covid-19 pandemic in Fije: Challenges, facilitators and improvement strategies. *Qualitative Research Journal* 23 (1), 62 – 82. http://doi. Org/10.1108a RJ – 03 – 2022 – 00041
10. Sambo, U., & Sule, B. (2021). COVID 19 and national security challenges in Africa: Analysing the responses towards countering Armed Banditry in Northwestern Nigeria. *Journal of Conflict Resolution and Social Issues, 1*(2), 1-17.
11. Saniasiaya J, Islam MA (2020). "Prevalence and Characteristics of Taste Disorders in Cases of COVID-19: A Meta-analysis of 29,349 Patients". Otolaryngology–Head and Neck Surgery. 165 (1): 33–42.
12. UNESCO.(2020). Education: From disruption to recovery. Retrieved from https:// en. unesco .org/ covid19/education response
13. Usman, S.O, Obi, S.E, Ibrahim, M.N & Daniel, A.V, (2024) An assessment of COVID-19 and its impact on Nigeria's socio-economic Cogent Social Science, 10(1),1-25
14. World Bank World Development Report 2019: The Changing Nature of Work" Retrieved 23rd February 2023/2024.
15. World Health Organisation (2023/2024) In Nigeria, from 3 January 2020to 4:24pm CET, 21 February 2023/2024 https:// covid19.who.int/ region/ afro/ country/ ng Retrieved 23rd February 2023/2024
16. World Health Organisation. (2020). African countries move from COVID 19 readiness to response as many confirm cases. WHO Africa. Retrieved from https://afro.who.int/health-topics/coronavirus-covid-19. Accessed 19th February, 2023/2024 at 8:26 pm.