

The Disruption of Novel Coronavirus (COVID-19) Pandemic and Quality of Higher Education in Nigeria

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Abstract. The article examined the disruption of novel Corona virus Pandemic and quality of Nigeria higher education. However, the paper noticed that the Corona virus Pandemic had created serious damages to the social and economic development of the globe including educational system. To this end, the article traced the history of the Corona virus, the symptoms, the disruptive nature of the Pandemic, methods and containment measures, how the Pandemic affect the effectiveness and efficiency of Nigerian higher education Administration. It was concluded that that distrusted aspect of Corona virus had greatly affected the teaching, research and community service in Nigeria Higher Education. However, suggestions was provided that, the government and stakeholders of Nigerian higher Education need to get prepared for the compliance with the issues of social distancing, avoiding community transmission, hygienic situations ,wasting and sanitizing the hands and minds , the use of face masks and avoiding an overcrowded environment including the higher education environment.

Keywords: Corona virus Pandemic, disruption of novel, higher education and quality

1. Introduction

1.1 History and Types of Pandemic at Global Level

A pandemic is a disease outbreak that spreads across countries or continents affecting a lot of people and causing deaths. The number of deaths in a pandemic situation may depend on the number of people infected, severity of the illness the causative organism causes, the vulnerability of the people and the prevention and containment measures and the

effectiveness of such efforts. Throughout the ages, man has had to contend with pandemic diseases at one time or the other. In the realm of infectious diseases, a pandemic is the worst-case scenario. Although communicable diseases have been with mankind, the emergence of large communities made epidemic more possible and many diseases such as malaria, tuberculosis, leprosy, influenza and others became possible during this period. Studies have shown that the more civilized humans became, building cities and forging trade routes to connect with other cities, the more likely pandemics became. Throughout history, nothing has killed more human beings than infectious diseases. It has been reported that the plague of Justinian struck in the 6th Century and killed as many as 50 million people, perhaps half the global population at the time. The Black Death of the 14th Century that was likely caused by the same pathogen killed about 200 million people. [Smallpox may have killed as many as 300 million people](#) in the 20th Century alone. The influenza pandemic of 1918 killed about 50 to 100 million people. HIV, a pandemic that is still with us and still lacks a vaccine, has [killed](#) an estimated 32 million people and infected 75 million, with more added every day.

1.2 Corona Virus Pandemic at Global Level

According to the World Health Organization (2020), Coronaviruses are a large family of viruses that are known to cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). These viruses have been here with us for as long as common cold, for example, has been with man. Studies suggest that common cold is caused by a virus that originated in

birds which may have crossed the species barrier over 200 years ago to man (de Graaf et al, 2008). Common cold is the most frequently experienced infection in humans with the single most bothersome symptom of sore throat on the first day, followed by nasal congestion and cough in the subsequent days (Witek, Ramsey, Carr & Riker, 2015). Severe Acute Respiratory Syndrome disease (SARS) caused by SARS coronavirus (SARS-CoV) broke out in Guandong, China in 2002 and was also thought to be an animal virus from an as-yet-uncertain animal reservoir, perhaps bats, that spread to other animals and later to man (Zaki, Boheemen, Bestebroer, Osterhaus & Fouchier, 2012). About a decade ago, a novel coronavirus (CoV) related to the Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV) was isolated from a patient in Jeddah, Saudi Arabia and was found to be the causative agent for the pneumonia the patient presented with at the hospital. Scientists found out that this novel corona virus was related to several bat corona viruses and was named Middle East Respiratory Syndrome (MERS) because all of the cases of infections occurred in the Middle East or linked to travelers from the region. A novel coronavirus (CoV) is a new strain of coronavirus that has not been previously identified in humans. Detailed investigations found that SARS-CoV was transmitted from civet cats to humans in China in 2002 and MERS-CoV from dromedary camels to humans in Saudi Arabia in 2012. Several known coronaviruses are circulating in animals that have not yet infected humans and according to scientists, more coronaviruses are likely to be identified with improved surveillance around the world (WHO, 2020). So long as human beings have unrestrained interactions with animals that are usually the carriers so long shall these viruses be transmitted to man.

In 2019, a novel strain of the coronaviruses emerged in Wuhan, China and what seemed then to be an epidemic disease became a pandemic within months. The new overseas trading routes made it possible for the novel infection to spread far and wide within a short period of time and the number of infected persons outside of China increased in the last week of February 2020 affecting growing number of countries making the World Health Organization to declare it as a pandemic on March 12, 2020 (WHO, 2020).

Nigeria had her index case of the coronavirus disease confirmed in Lagos by the Federal Ministry of Health on February 28, 2020. The case was an Italian citizen who works in Nigeria and returned from Milan, Italy to Lagos on the 25th of February, 2020 (FMoH, 2020). As with other countries, infections from travelers from epidemic areas and community

transmission continue to rise astronomically across the states of the federation. To control and contain the spread of the novel virus, the Federal Government of Nigeria directed that all unity schools in Nigeria be closed down immediately and it became effective on the 19th of March, 2020 (FMoE, 2020). All the educational institutions at all levels have closed since then.

1.3 The Novel of Corona Virus (Covid-19) Pandemic as a Global Disruption

Disruption is defined by the Cambridge Dictionary as the action of preventing something, especially a system, process, or event from continuing as usual or as expected. Disruptions are commonplace and can occur anywhere at any time with or without warning. Random phenomena, accidents, government and politics, non-compliance, competition, economy, social disconnect and intentional disruptions such as cybertheft are some of the causes of disruptions. Natural disasters are random in nature and they could range flood, building collapse, bridge collapse, tsunami, wild fires, earthquake, and so on. When natural disasters occur, they could disrupt every aspect of human life including his environment, economy, communication, social, health, education and other facets. Cybersecurity issues are intentional disruptions because individuals or bodies engaged in causing cyber-insecurity do so intentionally with the hope of making communication impossible or to cause intentional disruption in the optimal performance of system. As the name implies, accident cause of disruption may occur inadvertently or un-intentionally. The disruptions in accidental cases occur un-intentionally, without prior plan to execute them. Automobile accidents, spilling of milk and home gas explosion are examples of accidents. Government and politics are major causes of disruptions today, affecting all spheres of life. Well intended, obnoxious and inconsiderate or misunderstood policies of government can cause things to not work the way they used to be. Strike actions by workers unions and civil society organizations, loss of jobs, loss of businesses and profits are examples of disruptions due to government policies and regulations. We can have a long list of items on how politics cause disruptions. Depending on how one looks at it, the novel coronavirus (covid-19) pandemic disease pandemic is a global disruption that has arisen accidentally, intentionally or naturally. It is a black swan disruption. The class of disruption is not as important as the impact of the disruption that coronavirus disease pandemic has caused the world and coronavirus or Covid-19 disease is now a household

name that is on the lips of both old and young. The effects of the disruptions are everywhere and are implicated in the restrictions of movements, international travels, shut down of educational institutions, lockdown of cities and businesses, plummeted economy, congestions at the sea and land borders, shortage of raw materials, shortage of semi-finished and finished goods and inability to convert materials from one form to another. Inability to acquire supplies, inability to ship or loss of shipment, inability to communicate, inability to convert materials at one stage to another and many more are the consequence of coronavirus disease pandemic. The effects of these disruptions in economic terms can be better visualized from data of organized societies that have good documentation. Pages of media are littered with captions such '2.9 million claim unemployment benefits. According to a professor of business logistics, this covid-19 is a black swan (Heskett, 2020) and like all black swan events, covid-19 disruptions are rare but with far-reaching consequences. Although some scholars disagree with the reference to covid-19 as a black swan since respiratory diseases have been with humanity for a long time now. While it is true that communicable diseases are predictable in their routine occurrence, the specific nature of covid-19 make it difficult to prepare for. Whatever school of thought one belongs to, there is no doubting the fact the effects have been severe on the economy of nations, especially the globalized supply nature of the world economy.

1.4 The State of Higher Education in Nigeria before the Novel Coronavirus Pandemic

Before the outbreak of the coronavirus, the world had her struggles with wars, hunger, infections, kidnapping, social, economic, and political issues among others but none of these had such widespread impact as the novel coronavirus pandemic. The Western educational system in Nigeria has witnessed growth in many ways from the colonial time to the present. Our school system was modeled as much as possible after the British educational system and facilities and conducive environment were available to both the teachers and the learners during the oil boom when money was not the problem of Nigeria. Scholarly articles in scientific journals focusing on the educational system have different views as there are authors but a converging point is the myriad of problems that authors identified with the educational system in Nigeria. These problems, the authors argued, have the potential to undermine quality education and they include poor funding, poor infrastructure, inadequate classrooms, teaching aids

(projectors, Computers, Laboratories and libraries), paucity of quality teachers and poor / polluted learning environment. Other problems identified were social vices such as examination malpractices, cultism, hooliganism and corruption (Odia & Omofonmwan, 2018) and are intentional disruptions to the educational system generally and quality of education in particular. These problems are part of the reasons for the frequent face-off between the academic staff unions of tertiary institutions such as the Colleges of Education Academic Staff Union (COEASU), Academic Staff Union of Polytechnics (ASUP), and the Academic Staff Union of Universities (ASUU). Many of these problems, though common, were not as widespread and cannot be compared to the magnitude of the disruptions caused by the current coronavirus disease pandemic and there are as many disruptions due to the pandemic as there are collocation of disruptions.

2. Structure of Higher Education in Nigeria

Higher educational system or what is called tertiary level of education, in Nigeria, consists of a university and a non-university sector. The university sector is made up of the public and the private universities. Public universities belong to either the state or federal governments and the private universities are owned by individuals and missionary organizations. The non-university sector consists of polytechnics, monotchnics, and colleges of education.

2.1 Funding of Higher Education

The National policy on Education (2004) places the burden of responsibility on the government to provide free education at all levels. The public sector is the major provider and financier of education in Nigeria since the mid-1970s when the government took over most of the schools in the country from primary to tertiary level for effective management as it was believed that only the government can effectively provide education appropriately to her citizens. The government at this time had abundance of dollars from the oil boom and buoyant economy. Funding education at this time was not very difficult. There were fewer tertiary institutions, for example, and the infrastructure and living conditions in the schools at that time were at their optimum. This period witnessed fewer unrest from stakeholders of education. The economy of the country, however, began to nosedive in the 1980s with attendant strain on resources allocated to various sectors of the economy, including education. The rising cases of unrest by student and other stakeholders' unrest at the turn of 1980s was connected with the poor funding

and decaying facilities that the institutions began to witness. Moreover, the impact of the implementation of Universal Primary Education (1977) without matching human and material resources and preparations began to show at the tertiary institutions. There were more candidates ready for admission into the tertiary institutions, more admissions per program, a smaller number of trained manpower to match the number of students admitted, crowded classroom and abundance of over stressed and non-refurbished infrastructure. In anticipation of continuous flow of money and in response to the growing pressure on the few tertiary institutions, other higher educational institutions were established across the nation. How has the funding of these institutions been over the years?

This information from the website of the Federal Ministry of Education as at the time of writing this paper may give us some insights into the funding of tertiary education in Nigeria.

The Federal Government constituted a committee on Needs Assessment of Nigerian Public Universities (CNANU) to appraise specific and general needs of Nigerian Public Universities nationwide. The Report of the Committee was presented to the Government in 2012.

In 2013, the Federal Government in realizing the recommendations of the CNANU report set up the Implementation Monitoring Committee (IMC) chaired by the Honourable Minister of Education with membership from Office of the Secretary to the Government Federation (OSGF), Federal Ministry of Education (FME), National Universities Commission (NUC), Tertiary Education Trust Fund (TETFund), Committee of Pro-Chancellors (CPC), Committee of Vice-Chancellor (CVC) and Universities' Based Unions (Academic Staff Union of Universities (ASUU), Senior Staff Association of Nigerian Universities (SSANU), Non-Academic Staff Union of Universities (NASU) and National Association of Academic Technologists (NAAT). Government has approved the total sum of N1.3 Trillion within six years. The formula for the disbursement of the revitalization fund of the Nigerian Universities agreed with ASUU is as follows:

Year	Amounts
2013	N200 Billion
2014	N220 Billion
2015	N220 Billion
2016	N220 Billion
2017	N220 Billion
2018	N220 Billion
TOTAL	N1.3 Trillion

So far out of the N200 Billion for 2013, the sum of N98,895,060,481.49 has been released to the Universities as the first Tranche. The IMC has met severally and all the benefiting Universities have received 50% of the total amount allocated to them for 2013.

The benefiting Universities projects and programmes on Needs Assessment are various levels of implementation as approved by IMC. All the Universities have submitted progress report on the on-going projects. Monitoring of the level of implementation of the Needs Assessment Intervention in the benefiting Universities commenced from 5th-30th October, 2015.

For polytechnics and colleges of education, the Federal Ministry of Education on their website in May 2020 said that 'the Reports of the Needs Assessment of Public Polytechnics and Colleges of Education have been submitted to SGF for the consideration of Mr. President since May, 2015'. From the above, it is obvious that there are delays in the releases of funds to the tertiary institutions and such releases are usually below expectations. How would late and incomplete release of funds to an educational institution affect the quality of higher education? Or put it in another way, 'where does quality higher education stand in the midst of low, incomplete and late releases of funds to educational institutions?'

2.2 Quality of Higher Education

There are many definitions of quality that are either subjective or objective. If you look in a dictionary, you will find several definitions. In addition, every quality expert defines it in different way depending on their environment and criteria. Quality could be defined as a basic tool for a natural property of any good or service that allows it to be compared with any other good or service of its kind. The word quality has many meanings, but basically, it refers to the set of inherent properties of an object that allows satisfying stated or implied needs. Furthermore, the quality of a good or service is the perception that a customer has about it. It is a consumer's mind-set who accepts a specific good or service and acknowledges its ability to meet his or her needs and can be looked at from the product features, freedom from deficiencies, production perspectives and value perspectives, and the perception of the customers or consumers, among others. Education and skills form the basis of any economy. They enable social movement and can make the difference between poverty and prosperity.

Other definitions from recognized organizations and experts in the world of quality are:

- Quality is the degree to which an object or entity (e.g., process, product, or service) satisfies a specified set of attributes or requirements.
- The quality of something can be determined by comparing a set of inherent characteristics with a set of requirements. If those inherent characteristics meet all requirements, high or excellent quality is achieved. If those characteristics do not meet all requirements, a low or poor level of quality is achieved.
- Quality is the degree to which a set of inherent characteristics fulfils requirements.

A subjective term for which each person or sector has its own definition. In technical usage, quality can have two meanings: 1. the characteristics of a product or service that bear on its ability to satisfy stated or implied needs; 2. a product or service free of deficiencies. According to Joseph Juran, quality means “fitness for use”. According to Philip Crosby, it means “conformance to requirements”.

How far would these definitions of quality help us to understand higher quality education in Nigeria? For higher education in Nigeria, it is important that we understand the vision of the government for the education of her citizenry at the tertiary level. The vision of the Federal Government of Nigeria, as expressed by the Federal Ministry of Education (2020) is to advance Nigeria’s economic growth and global competitiveness through the provision of accessible, relevant, high quality education in the tertiary Education institutions and to constantly attract, develop and graduate competent, knowledgeable and talented individuals from the nation’s tertiary education institutions. From the above, one can outline what quality higher educational system should have to advance the economy, be globally competitive and have the ability to develop and graduate competent and knowledgeable individuals. Quality higher education would be impacted by social, technological, environmental, economic and political environments. The quality of infrastructure, manpower, and students being admitted would also affect the quality of higher education. When students with low academic performance are admitted to program that they do not qualify, that would impact the entire system just the same way as employment of unqualified, untrained, and non- dedicated workforce would. The series of papers in the scientific literature focusing on quality of higher education are indications of the need to

attend to the dwindling quality of higher education even before the covid-19 pandemic. Quality higher education in Nigeria thus includes all the attributes that are need for achieving the goals of the federal government in the establishment of the tertiary educational institutions. In this context and although it has been mentioned previously that quality has both objective and subjective components, quality higher education is the one that has the right workforce in the right quantity at the right time, under right working environment and conditions of service, to produce the right quantity of the right products with the right knowledge, skills and attitude that are useful to both self and the society and who would be useful for the building and sustenance of the economy and values of the society. To some extent some of these attributes are present in the tertiary educational system but not all and this explains the continuous call for quality education in our higher educational system.

2.3 Academic Calendar of Higher Educational Institutions

The standard academic calendar for tertiary educational institutions in Nigeria is from October to June. Consistent and predictable uniform academic calendar for tertiary institutions in Nigeria did not last for long after its implementation due to disruptions that were largely due to imbroglio between the university workers, especially the Academic Staff Union of Universities (ASUU) that was formed in 1978, and the federal government and the issues border on poor funding and welfare. These disruptions could be of national or local dimensions and when they are at the local level, they are usually related to welfare issues. The number of disruptions in tertiary institutions academic calendar due to strike actions were increasing by the year and as the value of the naira and government’s willingness to fund education decreased.

It may be interest us to look at some of the issues between the Federal Government and Nigeria and the ASUU, for example. At the website of the Federal Ministry of Education, the Federal Government cataloged the below as some of the issues between them and the unions of tertiary educational institutions (FMOE, 2020):

‘Below is a status of labour issues arising from the implementation of the FG/staff Unions 2009/2010 Agreements in the three -tiered Federal tertiary institutions:

3. Universities

3.1 Academic Staff Union of Universities (ASUU)

Most issues of the 2009 Agreement between FG and ASUU have been resolved. The promise of N100 Billion to the Universities has been fulfilled and Stakeholders Town Hall Meetings with the Supervising Minister have held in North Central, South-South, South-East and South-west Zones between 4th and 13th March, 2014.

- (a) **Earned Allowances:** N92, 823, 209,349 was recommended and adopted for implementation. FG had since released N30 billion to the Universities and this disbursed. However, Chairman IMC has requested Government to pay the outstanding balance of N62 Billion to be released for payment to the Universities. However, as agreed detailed returns to FG on expenditure is expected before another release of N10 Billion is made. Chairman IMC had since written to complain of the failure to fulfill Mr. President's condition of a detailed retirement of the funds released whilst noting that many Universities sent in fraudulent returns, he then called for a forensic audit of the Earned Allowance and advised the Unions to give their members the true picture of the situation on ground.
- (b) **Revitalization of Nigerian Public Universities:** (i.e with the exclusion of Private Universities) the commitment by the Federal Government of Nigeria injecting the sum of N1.3 trillion within six years. •The formula for the revitalization of the Nigerian Universities agreed with ASUU is as follows: N200 Billion in 2013 and N220 Billion yearly from 2014 for 5years. So far out of the N200 Billion for 2013 the sum of N98, 895,060,481:49 (as at 25th March 2015 as been released and this represents approximately 50%).
- (c) **Consultancy Services:** Government is expected to engage the services of Universities in special consultancy services such as geological /solid minerals survey, biotechnology, environmental impact assessment, shelter belt and minerals mapping amongst others to boost IGR base;
- (d) **Nigerian University Pension Management Company (NUPEMCO):** All conditions had been fulfilled and IMC only awaits PENCOM's approval.

(e) **Renegotiation of the 2009:** Agreement was expected to commence in the first quarter of 2014. FG yet to make a statement on the exercise.

3.2 Joint Action Committee (JAC) Of Non-Academic Staff Unions: Senior Staff Association of Nigerian Universities (SAANU), National Association of Academic Technologists (NAAT) and Non- Academic Staff Union of Educational & Associated Institutions (NASU)

- **Elongation of Career Structure for NAAT:** The agreement is yet to be implemented as agreed in 2009 as it is still before the Head of Service.
- **Staff Primary Schools:** JAC decries the continued implementation of the NSIWC Circular endorsed by the NUC, the implementation resulted in the sacking of teachers and non- payment of salaries to such teachers from 2015 in Abia State. JAC is demanding for a withdrawal of the Circular whilst insisting that the schools should not be classified as Private Schools. The Ministry however, continues to reiterate Government position that the Schools cannot be funded by FG.
- **Nigerian University Pension Management Company (NUPEMCO):** Same as 'd' in ASUU.

4. Polytechnics

4.1 Academic Staff Union of Polytechnics (ASUP)

The Union had in various correspondences tendered 13 items, however it was noted that most of the items agreed upon between FG and the Union had been implemented with the following exceptions:

- Establishment of a National Polytechnics Commission which is not feasible due to FG's drive at pruning existing MDAs;
- Release of Government White Paper on the Visitation to Federal Polytechnics: The Ministry awaits release from the Office of the Secretary to the Government of the Federation;
- Degree awarding status of Kaduna Polytechnic and Yaba College of Technology is yet to be implemented: However there are calls for conversion to Dual mode of some Polytechnics. A Committee headed by the Permanent secretary had concluded its assignment and its Report submitted to FG. The Ministry awaits a response on the matter;
- HND/B.Sc Dichotomy: Same as 'C';
- IPPIS: The Office of the Accountant General had interfaced with the Unions and

it appears the Unions fears have been allayed, but since this is Government Policy, the unions would have to embrace it;

- .CONTISS 15: Arrears for Migration of lower cadres (CONTISS 11 and below): In view of the colossal amount (N20 Billion) required to offset the arrears from 2009, the National Salaries, Incomes & Wages Commission made its observation on the faulty implementation. An Inter – Ministerial Committee headed by the Honourable Minister of Education was constituted to address this. The Committee’s Technical Committee will embark on a verification exercise to ascertain those who are deserving of the migration and arrears. Senior Staff Association in Nigerian Polytechnics (SSANIP) & Non- Academic Staff Union of Educational & Associated Institutions (NASU)
- Issues are similar to that of ASUP with the most contentious being Release of Arrears for Migration of Lower Cadres (CONTISS 11 and below).
- SSANIP however, resumed industrial action on Tuesday March 26th, 2015 over some recommendations and proposed Verification exercise yet to be embarked upon fearing that this would have adverse effects on its members.

5. Colleges of Education

5.1 Colleges of Education Academic Staff Union (COEASU), Senior Staff Union Colleges of Education, Nigeria (SSUCOEN), & Non- Academic Staff Union of Educational & Associated Institutions (NASU)

It is observed that the issues in the Colleges are cross cutting and presented as follows:

- **Migration of lower cadres effective since July 2013 in the Polytechnics:** Status is same as with the Polytechnics;
- **Non-funding and Non- Accreditation of Programmes:** It is observed that this has had a crippling effect on the equality of the operations and products of the Colleges. It is recommended that this be treated as high priority;
- **Staff Demonstration Schools:** Same as with the Universities;
- **Non- release of Government White Paper:** Same as with the Polytechnics;

- **Out- sourced Services (security &labour):** The locations of some of the colleges are prone to encroachment and external invasion. Heightened by underfunding in overheads and the general insecurity in the country the Staff Unions have constantly called for a review of Federal Government’s policy on these out – sourced services to safe guard lives and property;
- **IPPIS:** Same as with Universities &Polytechnics;
g.Autonomous Degree Award: Same as ‘c’ in Polytechnics (ASUP).

6. Outstanding Cross– cutting Unions’ issues

Renegotiation of the 2009 /2010 agreements between Government and the Staff Unions in the three tier Federal Institutions. With Government’s commitment to sustaining industrial harmony, it is necessary for Government to make a statement on the way forward.

Ogbette , Eke and Ori (2017) dived into and catalogued the causes, effects and management of ASUU strike between 2003 and 2013 and their findings linked the major cause to the inability of the government to honor agreements made to the striking lecturers who were demanding improvement on their welfare, working environment and funding of higher education in Nigeria. Academic calendar disruptions affect effective planning and expected outcome from the educational system and scholars have written a lot on the consequences of industrial actions at the tertiary educational institutions in Nigeria on quality output by students and lecturers (Adavbiele, 2015; Albar &Onye, 2016).

7. Higher Education in Nigeria in the Wake of the Novel Coronavirus Pandemic

With the increasing rate and extent of infection after the first index case of covid-19 infection was reported in February in the country, it became necessary to close down all establishments to contain the novel coronavirus. The consequences of the actions taken to contain the pandemic have been enormous. The economy was shut down with the lockdown and the process of crude oil went down to an unacceptable level in the midst of shrinking global economy. During the period the budget was reviewed downwards because of the non-feasibility of working with the national budget before the spread of the pandemic. A downward review of the budget is a cut down on basic infrastructures, including those in the

educational sector, and by implication, higher education.

The place of internet and communication technology (ICT) in the quality of higher education cannot be over-emphasized. Tertiary educational institutions may have ICT facilities but it is likely that the utilization and operations may be marred by epileptic energy and internet connectivity problems. Didactic mode of delivery is still the main method. Elsewhere, e-learning platforms, e-chalk, and other internet-based delivery are common place. Consequently, even though the university lecturers are currently on strike, the use of online teaching methods, as advocated by the Federal government, may not be feasible during this lockdown period. No teaching and learning using any teaching and learning methods is consciously going on right now in all the tertiary (government) educational institutions where the industrial action and the disruption by the novel coronavirus pandemic disease are in force. Thus, the quality of higher education that has been defined above as the one that has the right workforce in the right quantity at the right time, under right working environment and conditions of service, to produce the right quantity of the right products with the right knowledge, skills and attitude that are useful to both self and the society and who would be useful for the building and sustenance of the economy and values of the society is at its lowest ebb during the pandemic.

It must be mentioned here that efforts have been made by some organizations to ensure the continuity of teaching and learning. The African Union (AU) Commission partnered HP on initiatives to boost e-learning in 55 AU-member countries, including Nigeria, to reduce the effect. If the industrial dispute between workers in tertiary educational institutions and the federal government, the availability of this learning platform and any other may help to strengthen higher education. It is obvious that the coordinated response to covid-19 recipe provided by the Ministry of Education targets primary and secondary levels of education only (FMOE, 2020).

This webpage has been developed by the Task Team responsible for Coordinated Education response to COVID-19 pandemic to provide information, guidance, and resources to the 36 States and FCT for the continuing education and individualized learning of children at home. Powered by the Federal Ministry of Education (FME) and the Universal Basic Education Commission (UBEC), it is intended that the webpage will provide real-time guidance on learning resources and monitoring children at home

in the period of the crisis. The Task Team has worked out a Learn at Home Programme (LHP) for ensuring the continuity of learning for all students through this trying period. Through the web page, information will be updated constantly on:

- The implementation of the LHP;
- The online resources and options available for uniformity and equity;
- Advisory on the choice of channels which will be left solely at the discretion of States
- Systems for monitoring and tracking performance of utilization of resources made available at contact, broadcast, and delivery levels

In addition, the Federal Government provided platform for e-learning during this period targeted at those preparing for their final examinations at the senior secondary school level especially and those in the National Open University. It provided links to a number of e-learning resources that individuals can access, which is laudable. These resources include the following:

- **WAEC- <https://waeconline.org.ng/e-learning>**
- **School gate e-learning for primary school pupil- <https://www.schoolgate.ng/>**
- Mobile classroom application- **<http://www.mobileclassroom.com.ng/>**
- National Open University- **<http://ceagslearn.nouedu.net/>**
- Khan Academy- **<http://www.khanacademy.com/>**
- Seesaw- **<http://web.seesaw.me/>**
- UNESCO School meet the learner (SMLA) - **shorturl.at/fkMPP**
- Teacher Development Programme ResourceHub- **<http://www.tdpnigeria.org/home>**
- British Council- **<http://education.gov.ng/wp-content/uploads/2020/05/English-Language-Learning-Resources-for-Teachers-Learners-and-Parents-.pdf>**
<http://education.gov.ng/wp-content/uploads/2020/05/Connecting-Classrooms-Resources-British-Council.pdf>

There are virtual learning platforms for Unity Schools:

- **Junior School <https://t.me/joinchat/PXkmchrCjpmuvt8RLH> tg**

- **Senior School** <https://t.me/joinchat/PXkmckev-4nIkoHoqes3cg>
- **EduFirst TV** <https://www.youtube.com/channel/UC H2ONb1eLgZ76FvtGuLJDnA>

A search at the websites of Nigeria universities did not show any active e-learning programmes targeted at students during this period. If the resources are there, then it may not be unconnected with the ongoing industrial action embarked upon by the Academic Staff Union of Universities who are the ones to develop the course.

8. Higher Education in Nigeria Post the Novel Coronavirus Pandemic Disease

It is our prayer and hope that the pandemic shall come to an end soon or later. Like every season in life, this one too shall come to pass. There is no doubt about that. The question would be on what happens after that? How would Nigeria come out and how would Nigeria respond to it and what would be the short, mid-term and long-term impact on the quality of higher education in Nigeria. There is a general new thinking among nations and that is affecting how the new normal world order after the covid-19 pandemic would be. For example, many countries that used to outsource their essential commodities are having a rethink of producing them locally. India stopped the exportation of some of her active pharmaceutical ingredients to be able to serve home needs, United States of America has to engage automobile companies to manufacture respirators for use in the country because of shortage, someone other countries like Nigeria realized that their healthcare facilities are bad. The Secretary to the Federal Government (SFG) of Nigeria, the Chairman of the Presidential Task Force (PTF) on covid-19, confessed publicly that he did not know that the healthcare facilities in the country were in such a sorry state of disrepair and maintenance. People in high places have before now sought medical attention overseas and do not bother about the state of the nation's healthcare facilities. One positive thing that covid-19 has done is that it has humbled humanity and many are re-evaluating their priorities and values. In trying to answer what the impact of covid-19 pandemic would be after it has gone, one would like to look at it from the following perspectives:

8.1 Social Distancing

One of the containment measures for covid-19 world-wide is social distancing and compulsory use of

facemask. Would covid-19 infection go completely or there would still be the need to observe social distancing in public places like classrooms? If social distancing is imbibed as a new normal, what happens to teaching methods involving interactions at close proximity like in the theatre and film arts and those who have to carry out practical classes in constrained laboratories in the sciences? If the number of students per a practical class has to be reduced to accommodate social distancing culture, how many times would such a practical be run to meet minimum requirements specified in the syllabus? Reduction in class size has both positive and negative implications: Small class size may afford the students with better opportunities to interact with the lecturers but may wear the lecturers out if more hands are not engaged.

8.2 Research and Development

It is expected that in the spirit of re-assessing values and priorities that the government would look into the infrastructural decay at the tertiary institutions so as to make teaching and learning meaningful and improve on the quality of higher education. The pandemic has made research and development a priority area. The governments are looking for local solutions to our local problems. Funding of research in search of cure for covid-19 has the capacity to producing home-made remedies for the pandemic and at the same time build capacity to the rate and extent that we have ever attained as a nation. It is understood, for example, that the National Universities Commission now has funds to help research investigate our herbal materials for solution to the pandemic. Support in form of research grants to the health sector at the tertiary level would impact on quality higher education just as it would to agricultural and engineering sector in response to covid-19. As a result of desperation to find solution to the problems of covid-19, university lecturers are bringing out innovative ideas that would help the economy to grow. For example, researchers have developed novel handwashing machines, produced hand sanitizers at the university level for the communities among other things that they are doing. Government needs to be committed to all the emotions that they expressed during this pandemic and fix the necessary infrastructure that that facilitate meaningful research and development in our tertiary institutions. Availability of equipment and workshops for our science based programmes are a most for a result-oriented research and development efforts.

8.3 Infrastructural Development

If value re-orientation is deepened by the coronavirus pandemic, then it is expected that individuals and

government would handle the issues of infrastructure seriously. Government may invest in providing the necessary infrastructure that would promote effective teaching and learning at our higher institutions of learning. Government may need to look seriously at how contracts are awarded for projects in a manner that it would ultimately benefit the recipient institutions. Delays in processes and unprofessional handling of contract and interactions with contractors can lead to delays in execution of contracts, poor delivery and sometimes inflated contracts or variations.

8.4 Manpower Training and Development

Manpower development may be a focus for the government to be able to meet future challenges that can impact on the economy. There is a lot to be addressed here, ranging from hiring the right individuals for the right positions in right numbers at the right time for the right place and developing them based on the identified training needs. The approved staff mix of, for example, academic to non-academic should be strictly adhered to and appropriately developed and trained. If Nigeria would achieve high quality education post-covid, deliberate personnel training and development must be carried out.

9. Paradigm Shift in Higher Education Supply Chain Strategies

This is where the decision to succeed or fail as a nation lies. In all disruptive situations, there are basically four responses: do nothing, embrace, avoid or comply. Both the government and the stakeholders in higher education have a role to play in disruption caused by the coronavirus pandemic and other disruptions that impact quality of higher education. Will the government and stakeholders prefer to do nothing but maintain *status quo* to issues that coronavirus pandemic has opened up for the country that are all linked in one way or the other to the training house? Would the stakeholders insure sustainability of higher education and the quality of the same?

9.1 The Role of Government in Post Covid-19 Quality of Higher Education in Nigeria

Higher education had problems before the coronavirus pandemic and the subsequent lockdown of the country's economy. To address higher education problems and thus the quality would require a system approach, as myopic approach may look attractive but would not address the problems in the long run. It always or sometimes feels good to be

a fireman solving one problem after the other but it is not necessarily the best for the system as a whole. Fire-fighting approach rarely addresses the underlying problems. Through policies, infrastructures, regulations and other machineries, governments can drive the growth of all the sectors of the economy which would in turn affect the sociopolitical wellbeing, human capital development, educational and health and others. A society is the collective responsibility of all the members to make it work. It takes a community of people to build a society and a society is not an enterprise of an individual. For efficiency and effectiveness, tasks and responsibilities are shared in a community and this division of labor brings about specialization. The resources of a country, like Nigeria, belong to all and not to any individual or groups of individuals but to all. It is understood that for efficiency and effectiveness, there be those who are in government like the executives, legislatures and the judiciary as well as the civil servants. The functions of each of these arms are clearly defined so that the commonwealth of the country can be effectively managed in a society that has rules and regulations that are enforced and obeyed to forestall anarchy. By design, the role of all stakeholders in a society, when played well, are expected to bring about peace, harmony, prosperity, development, individual and national growth, with the interest of the nation always predominating that of the individuals or groups of individuals. Governance should be for building legacies, making one's contributions to moving the system forward. It is the responsibility of government to ensure everything is done to promote the unity, sense of worth, patriotism and growth of the country. Post covid-19, all arms of government was must deliberate work towards the achievement of a free and democratic society, a just and egalitarian society, a united, strong and self-reliant nation, a great and dynamic economy and a land full of bright opportunities for all citizens (NPE, 2013). It is the responsibility of the government to ensure that the citizens live in unity and harmony as one indivisible, indissoluble, democratic and sovereign nation founded on the principle of freedom, equity and justice as well as promote inter-African solidarity and world peace through understanding. Post covid-19 role of the government is to remove all barriers to achieving the main goals of the nation. The weakened moral fibres of the nation by incompetence and hidden, sectional agendas, lawlessness, continuing spread of egregious violence and insecurity, mission vendetta in public offices, widening gap between the poor and the rich, maladministration at all levels and arms of government should be addressed headlong.

Transparency rather than opaqueness is should be the vigorous pursuit of arms of governments.

The quality of higher education in Nigeria can be guaranteed by the government by ensuring that, as administrators, the curriculum of the institutions are delivered within the time allotted to me the set objectives. In this regard, the structures of the governments can do well to reduce imbroglio between the workforce of the higher educational institutions and the representative of the government. It is interesting to note that the individuals in positions of authorities are but representatives of the government which is an entity that belongs to all citizens and not to those individuals and this understanding can help in reducing most of the conflicts. It would not be a good idea for the representatives of government to fuel conflicts among industrial unions in the tertiary institutions by deliberately creating conditions that can fuel unhealthy rivalry among the various unions. More importantly, there should be effective communication among the various agencies of government to avoid working in silos and mis-information.

9.2 The Role of the Employees in the Quality of Higher Education in Nigeria Post Covid-19 Pandemic

Every worker in a tertiary institution has the potential to influence and should influence students' trajectory and their usefulness to themselves and to the society and the world at large. Workers in our tertiary institutions, consisting of the academic and non-academic staff members have important roles to play in the advancement of the quality of higher education in Nigeria. Security personnel, for example should be well equipped and be dedicated to their duties, cleaners are humble enough to maintain their jobs of regularly ensuring the cleanliness of the environment, secretaries are able to deploy the available ICT in the office to enhance their jobs and those of their superiors, records and files are properly kept without mix-up or compromise, lecturers do not only teach the students at the right time but are also dedicated to their duties of teaching and research with the aim of imparting the productive knowledge on their students and finding solutions to the problems of their immediate communities and the country at large, technologists are able to manage their laboratories and appropriately assist the students and lecturers in the proper use of the chemical, reagents and equipment in their laboratories. Administrators have the responsibility of ensuring that the scarce resources are judiciously deployed for the advancement of the institutions, in collaboration with

their councils, employ, train, promote and motivate their employees to productive work in line with the overall vision for the institution. Post Covid-19 is the time for all hands to be on deck to make our institutions to live up to the responsibilities. A system of payment that is equitable to the contribution to the overall goal of an institution is more likely to motivate the workforce to dedication and less incidences of strife and imbroglio that may affect productivity adversely. It is counter-productive for the leadership of our institutions to do nothing to practices such as following up files and payment vouchers in order to get results, late coming to work, absenteeism, insubordinations, nepotism, tribalism, corruption and injustices as well as many others of such nature. Decisions should be scientific and data driven in our higher institutions post covid-19.

9.3 The Society as Stakeholders and their Role in the Quality of Higher Education Post Covid-19 Pandemic Disruptions

Government funds educational and other institutions with tax payers money and the commonwealth of the nation such as the material and natural resources. Moreover, the impact of the quality of our higher education is felt in the society by the quality of professionals from these higher institutions and are engaged in the society as teachers, administrators, lawyers, medical doctors, pharmacists, engineers, accountants, scientists, social scientists, behavioral scientists and host of others. Covid-19 has made bare the level of our health system, for example, and the infected individuals that need medical attention are members of our society. This is the reason why the society should ensure that they are educated and actively participate in shaping the course of things post covid-19. What roles can the society play? Many! If democracy is a system of government of the people, by the people and for the people, then society should determine who represents them in governance and policy formulations and implementations. Society should play active role in ensuring that we have quality higher education post covid-19 because Similarly, education fosters a democratic temper in the minds of people. Democratic values like liberty, equality, fraternity justice, dignity of individual, co-operation, sharing of responsibility and others are applied to education to make it more effective, meaningful, relevant and useful. Consequently the society should ensure that managers of the nation's resources be held accountable and to ensure that they deploy enough resources to our educational system to make it functional and relevant, and at the same time demand judicious utilization of such resources in ensuring quality higher education in Nigeria, post

covid-19 because it would be disaster to continue to do things the same way they have been and expect different results. Other nations are insuring are re-evaluating their values and repositioning their supply chain to meet local needs and Nigeria cannot do otherwise.

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