

**THE ROLE OF SCIENTIFIC AND TECHNOLOGICAL INTERVENTIONS IN THE MANAGEMENT OF
POST COVID 19 PANDEMIC IN NIGERIA: A SOCIO-PHILOSOPHICAL EVALUATION**

BY

PHILLIPS OLUBIYI

Department of General Studies

Federal Polytechnic, Ilaro

Ogun State, Nigeria

E-mail: olubiyi.philips@federalpolyilaro.edu.ng

Phone No: 08135985668

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Abstract

Prior to COVID-19, apart from a major dependence on oil for public revenues and foreign exchange earnings, Nigeria's economy was susceptible to inflationary pressures characterized by a high debt service portfolio, a weak infrastructural base and unsatisfactory human capital development factors. In the face of these emerging challenges, the onslaught of COVID-19 has also meant radically increased demand for resources in the health sector, for mounting personnel costs, hazard pay, and emergency equipment, such as personal protective equipment, ventilators, and oxygen tanks, testing facilities, isolation centres and drugs. This paper argued, that for the appropriate level of response, the Federal Government of Nigeria would have to significantly increase the country's health care expenditure. The immediate challenge for Nigeria is that of business continuity, especially how the country protect as many of her Micro, Small, and Medium Enterprises as is possible while keeping the economy competitive. Nigeria have a large informal workforce, usually daily wage earning, consisting of street vendors, petty traders, artisans, roadside motor mechanics, etc., who have now been deprived of their income. Therefore, this paper recommended that the way forward is for the government and citizens to inculcate public health responses and to strengthen resilience against the spread of the Covid-19. The establishment of a viable Science and Innovation ecosystem for the country especially by integrating the use of science and technology in the agricultural, housing, roads and solar power projects should also be introduced and implemented by the government across the country.

Keywords: *COVID-19 Pandemic, Challenges to Businesses, Health Responses, Insured Resilience.*

Introduction

The sudden appearance of Coronavirus disease in 2019 was firstly reported in Wuhan city in China, which is caused by severe acute respiratory syndrome (Hui et al., 2020). The disease is infectious and has been spreading drastically all over the world and considered by the World Health Organization (WHO) as a pandemic (WHO, 2020). The COVID 19 pandemic has had by far-reaching very severe consequences since it has spread to all the countries. The economy, in general, faces a direct impact in the mid of COVID 19 outbreak. Many countries face recession and economic downturn. All the business activities have been shut down unless it falls under the essential categories as necessary supplies and medical sectors, in addition to a few vital projects which are necessary to support the health system and safety of the people. Relatively, it has limited the business around the world and companies have shifted to work Work-From-Home (WFH) concept remotely to accommodate and run the business and services. This paper aims to identify the impact and assess them based on their level of severity.

There are five main ways through which the COVID-19 pandemic negatively impacted Nigeria. One, the COVID-19 pandemic affected borrowers' capacity to service their loans, which gave rise to non-performing loans (NPLs) that depressed banks' earnings and eventually impaired banks' soundness and stability. Subsequently, banks were reluctant to give additional loans to borrowers as more and more borrowers struggled to repay the loans granted to them during the COVID-19 outbreak. Two, there were oil demand shocks which was reflected in the sharp decline in oil price. The most visible and immediate spill over was the drop in the price of crude oil, which dropped from nearly US\$60 per

barrel to as low as US\$30 per barrel in March. During the pandemic, people were no longer travelling and this led to a sustained fall in the demand for aviation fuel and automobile fuel which affected Nigeria's net oil revenue, and eventually affected Nigeria's foreign reserve.

Three, there were supply shocks in the global supply chain as many importers shut down their factories and closed their borders particularly China. Nigeria was severely affected because Nigeria is an import-dependent country, and as a result, Nigeria witnessed shortage of crucial supplies like pharmaceutical supplies, spare parts, and finished goods from China. Four, the national budget was also affected. The budget was initially planned with an expected oil price of US\$57 per barrel. The fall in oil price to US\$30 per barrel during the pandemic meant that the budget became obsolete and a new budget had to be formed which to be had repriced with at a low oil price Adenomon, M. O., & Maijamaa, B. (2020).

Finally, the COVID-19 pandemic affected the Nigerian stock market. Major market indices in the stock market plunged when investors pulled out their investments into so-called safe havens like US Treasury bonds. Stock market investors lost over NGN2.3 trillion (US\$5.9bn) barely three weeks after the first case of coronavirus was confirmed and announced in Nigeria on January 28, 2020 Adeniran, A. O., & Sidiq, B. O. (2018).

The COVID-19 outbreak is likely to cause bankruptcy for many well-known brands in many industries as consumers stay at home and economies are shut down (Tucker, 2020). The travel industry was deeply affected; 80% of hotel rooms were empty (Asmelash & Cooper, 2020), airlines cut their workforce by 90%, and tourism destinations are likely to see nonprofits in 2020.

Furthermore, expos, conferences, sporting events, another large gatherings as well as cultural establishments such as galleries and museums have been abruptly called off. Consulting in general and personal services, like hairdressers, gyms, and taxis, have also come to a standstill due to lockdowns. People have also changed their consumption patterns, increasing the demand for takeout, snacks, and alcohol as well as cleaning products as we spend more time in our homes. Other industries that are doing well are those related to healthcare and medication as well as herbs and vitamins.

Typically, when studying markets, it is assumed that they are static, a natural conclusion since they tend to change slowly. However, if there is one thing the COVID-19 outbreak has shown us, it is that markets are dynamic (Jaworski, Kohli, & Sahay, 2000) and can move rapidly. Furthermore, a market is not just a firm; it is a network of actors (i.e., firms, customers, public organizations) acting in accordance with a set of norms. These systems are sometimes referred to as dynamic ecosystems that exist to generate value (Vargo & Lusch, 2011).

Problem Statement and Justification

This paper argued that Nigeria is currently faced with perhaps the most challenging economic downturn in her history just as the global economy is also confronting its sharpest reversal in a generation. With every country dealing with varying degrees of the same problem, there are few places to turn for help. In addition, several other State Governments took similar steps to slow the spread of COVID-19 in their respective territories. These have cumulatively resulted in

supply chain disruptions, suspension of commercial activities and large-scale job losses. The depletion of Nigeria's dollar earnings also depreciated the Naira, and pushed up prices, especially of imported goods. This is a cause for concern, coming at a time when the average household purchasing power is falling sharply on account of loss of income.

Objectives of the Study

1. Investigate the present level of the impact of covid-19 on the health, social and economic life on Nigerians in general.
2. Investigate the factors and possible roles of scientific and technological interventions in the management of post Covid-19 in Nigeria.
3. Suggest solution towards sustainable preservation of the social and economic life of Nigerians.

Literature Review

As of 13 April, more than 1.7 million people have been infected, and almost 85 000 people have lost their lives. WHO grieves with all families who have lost a loved one, and salutes health workers all over the world who have put themselves in harm's way every day to save lives. The global spread of the virus has overwhelmed health systems, and caused widespread social and economic disruption. By putting societies and economies on hold, the world have curtailed the ability of the virus to spread through our communities (WHO 2020).

These defensive measures have helped to limit some of the short-term impacts of the virus, and bought Nigerian time to translate what have be learnt about the virus into solutions so that we can get back to a more normal way of living: a new normal. Nigerians have learnt so much about this virus, and are still learning. This strategy update is based on the evidence the world has accumulated in the past three months about how COVID-19 spreads, the severity of disease it causes, how to treat it, and how to stop it. One of the main things we've learnt is that the faster all cases are found, tested and isolated, the harder we make it for this virus to spread (WHO 2020).

This principle have saved lives and mitigated the economic impact of the pandemic. These reactions guides the public health response to COVID-19 at national and subnational levels, including practical guidance for strategic action, tailored to the local context. This pandemic is much more than a health crisis. It requires a whole-of-government and whole-of-society response. The resolve and sacrifice of frontline health workers must be matched by every individual and every political leader to put in place the measures to end the pandemic. Over the decades, the world has become enamoured with the transformative power of technology, and the belief that it can be the panacea for all human challenges.

The COVID-19 pandemic has upended this narrative, however. In spite of all the hype, digital technology could not prevent nor control the spread of the coronavirus. Instead, sound policy interventions, accessible healthcare, devoted professionals and good common sense are what have flattened curves. The technology that controlled the infection wasn't a fancy contact tracing app, but instead the simple face mask.

The tech scene has been buzzing for a few years about the Fourth Industrial Revolution, a supposed technological transformation characterised by big data, artificial intelligence and automation.

But the last thing the world needs is another 'revolution' that ignores the external cost to society of human unchecked obsession with economic growth at all cost. Technology won't solve the climate crisis, prevent the recurring wildfires in the US, heal social divides or resolve social inequality. Only a concerted effort to reset our economic systems and a willingness to make hard choices about priorities will do that.

The seriousness of the foregoing had made action plans at the global state in imperative. The world today needs a different insured resilience'. The word 'insured' means to secure or protect someone against a possible contingency; in this case, the economic, social and climatic trends Nigeria faces in the 21st century, particularly those arising from unsustainable resource overexploitation, the crisis of consumption-led capitalism, biodiversity losses, and climate change.

'Resilience', in contrast, denotes society's ability to withstand and recover from these shocks when they occur. Together, insured resilience frames a society designed to both prevent and protect against crisis, and to recover quickly from damage.

What should Nigeria's priorities be?

Safety and security are the basis of insured resilience. An approach to human progress that insures society against shocks in order to build safe and secure communities. This is not a stockpile of goods or a reserve of funds, but rather an economic restructuring so that everyone's basic needs are met, natural systems are preserved, and social safety nets are established.

Insured resilience means that a country must be able to provide for itself in times of need, such as when global supply chains are disrupted. The pandemic has shown that those at the bottom-of-the-pyramid are often disproportionately affected by shocks. Governments need to step in with economic policies to ensure that common public goods, like healthcare, housing, education, food, water and energy, are provided equitably. Some rights cannot be left to market forces.

Then there are the external impacts directly caused by technological development. In places with persistently high rates of unemployment and underemployment, automation and artificial intelligence cannot be allowed to be endlessly 'disruptive'. Governments need to offer people proper alternatives and opportunities to reskill and up skill. We should not see technological advancement and human progress as the same thing; after all, billions of people in many parts of the world still lack stable electricity, clean water, and homes with sanitary toilets. For example, the pandemic has shown us that good sanitation and waste-treatment systems should be implemented in both urban and rural areas as a top priority.

Food security is of utmost importance in an increasingly crowded world. A vibrant rural economy must be maintained to prevent people from leaving the countryside in search of better jobs in the city. China knows this lesson better than

any other nation in the world, as shown by their recent campaign to tackle food waste, which will have a significant effect on how it grows, processes and consumes food (Nair 2020).

But insured resilience needs more than just government efforts. Instead, a viable society is the product of social contracts built between the different pillars of society, such as the government, the private sector, civil society and ordinary citizens. In these societies, there is an acute understanding of when and how to best put collective welfare ahead of individual rights.

To support collective welfare, society must protect the commons – the air, the fisheries, forests, rivers and all other natural resources — for future generations, and insure the world against natural shocks like climate change and pandemics.

Methodology

This study uses descriptive and qualitative analysis to examine the socio-economic impact of COVID-19 in Nigeria. The analysis in this study was conducted using information obtained from several reputable sources such as the World Health Organization (WHO), (SDGs Agenda 2030), (UNESCO) and information obtained from the media and other public sources. Additional information for this paper were obtained from wellsprings of newspaper and online publications, researches.

Some of the potential impacts of COVID-19 on the SDGs are summarized in Figure 1.

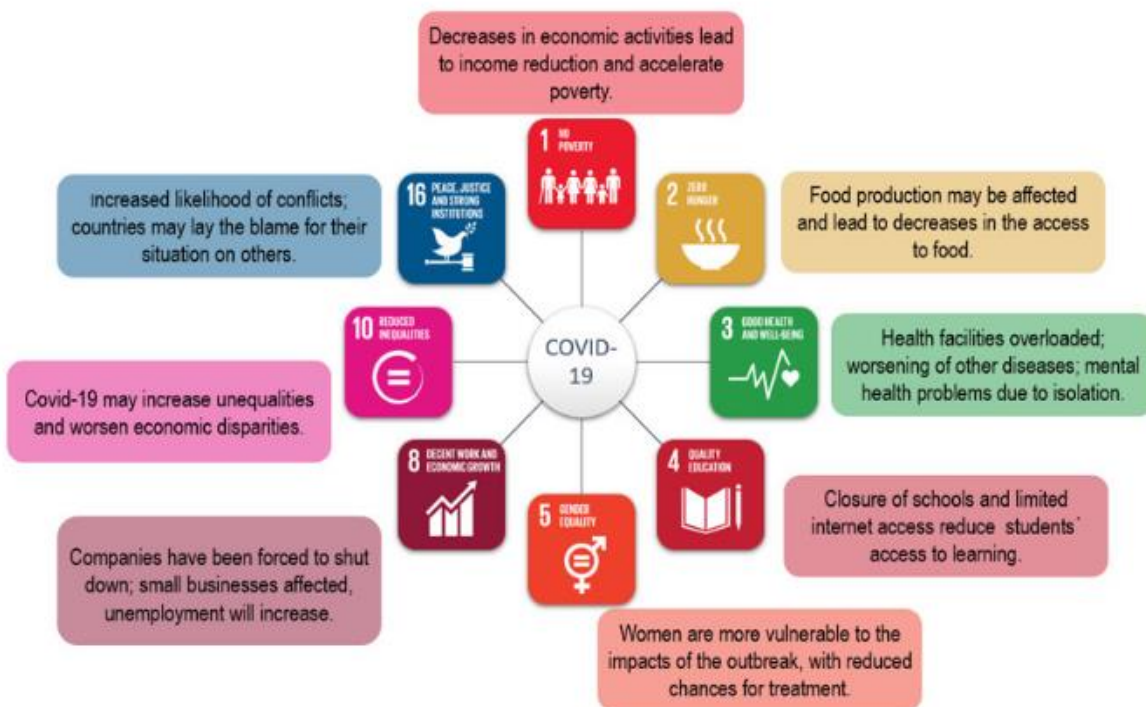


Figure 1. Some of the main impacts of COVID-19 on the Sustainable Development Goals.

Discussion and Findings

The COVID-19 pandemic will have economic consequences for many countries. In Nigeria, the country's lockdowns froze economic activities, causing job losses and supply chain disruptions. And its dependence on oil for revenue and foreign exchange has made it particularly vulnerable to the unprecedented oil price crash triggered by a collapse in demand.

Some analysts suggested that Nigeria's unemployment rate could rise to 33.6% (or 39.4 million people) by the end of the year if urgent steps are not taken. At the end of 2018 it stood at 23.1% (or 20.9m people). In addition, a recently released National Bureau of Statistics household survey showed that over 40% of Nigerian households could be classified as poor. It projected that the economy could shrink by anything from 4.40% to 8.91%. This would depend on the length of the lockdown period, the potency of economic plans that are put in place, and, in particular, the amount of stimulus spending.

To try and avert a drastic decline in economic growth, the government announced a stimulus package as part of its post COVID-19 economic sustainability plan. It also promised a stimulus spending package of N2.3 trillion (about \$5.9 billion) with the aim of keeping economic contraction to minus 0.59%.

The Government's plan

On the face of it, the general objectives of the plan appear laudable. The plan seeks to:

- Stimulate the economy by preventing business collapse and ensuring liquidity,
- Retain or create jobs in key areas like agriculture and housing,
- Undertake growth enhancing and job creating infrastructural investments,
- Promote manufacturing and local production, and
- Extend protection to the very poor and other vulnerable groups.

A number of key projects are also included in the plan. Some of the biggest are:

- a mass agricultural programme that is expected to bring between 20,000 and 100,000 hectares of new farmland under cultivation in every state,

- an extensive public works and road construction programme,
- a mass housing programme that is expected to deliver up to 300,000 homes annually,
- the installation of solar home systems for up to 5 million households, and
- a strengthening of the social safety net.

Also proposed is support for micro, small and medium enterprises, an 80% reduction in the registration fees for food, drugs, cosmetics, medical devices, and chemicals by the National Agency for Food and Drug Administration and Control (NAFDAC) as well as a waiver of administrative charges for product license renewals.

The government also plans to set up a survival fund to give payroll support to small and medium-sized enterprises, and to promote the use of domestic gas as well as technology hubs.

Ministers whose portfolios these fall under will be responsible for supervising implementation of the plans.

The problem is that these broad objectives sound like the typical campaign promises of successive Nigerian governments. This is true of the current one too. As with plans of this nature, the questions are: are they sensible? Will they be implemented?

Gaps

As usual, the Nigerian government has ignored the fundamental problems that have plagued previous economic plans.

Crucial sectors, such as power and education, have not been adequately considered. These are major omissions.

Electricity in Nigeria is both erratic and expensive. Consistent power supply would boost the productivity of businesses as well as improve the country's economic outlook.

Investing in the power sector would also help in the storage and processing of agricultural produce, another major problem plaguing the Nigerian agricultural and manufacturing sectors.

In addition, investing in the education of Nigerians (particularly in terms of entrepreneurship and practical skills) could help reduce the unemployment rate.

There is also the problem of implementation. Successive Nigerian governments have spent huge sums on various economic programmes in the past with very little to show for them due to ministerial corruption and mismanagement. This problem has stymied countless initiatives.

Another problem is that some features of the plan are very vague. For example, how exactly will the social safety net be strengthened? Who will be the beneficiaries and how will it work in practice?

Also, how can small and medium enterprises access the support that is being proposed? And why isn't there any mention of support for the health sector ?

Conclusion and Recommendations

To build resilience in the post- COVID-19 economy in Nigeria the following measures must be adopted by the federal government of Nigeria:

1. Digital identification of every Nigerian, this will help improve the provision of cash transfers and other benefits;
2. Broadband connectivity to help school children access digital education across the entire country;
3. Local production of all that we can: shoes, steel fabrication, ceramics, plastics, furniture and building materials;
4. Promoting strategic investment in the local manufacture of generic medicines to reduce importation of expensive drugs;
5. To establish a national research fund for medicine and pharmaceuticals funded by contributions from TETFUND and Corporate Social Responsibility expenditure of private companies;
6. To promote the uptake of the FGN Savings Bond to encourage all Nigerians to save a portion of their income no matter how small.

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